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THE SERIES OF COLONIAL REPORTS which was re-introduced for the year 1946 (after suspension in 1940) is being continued with those relating to 1949. It is hoped that the territories for which 1949 Reports are being published will be as listed on cover page 3.

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1949

1950



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PART I

Review of 1949

POLITICAL

One of the most important political issues of the year was Federation. In February, a conference between leading Unofficial Members of the Northern Rhodesia and Nyasaland Legislative Councils, and the Prime Minister and other Ministers of the Southern Rhodesia Government, took place at the Victoria Falls. The Conference, which was held privately, was purely exploratory, but it was subsequently announced that there had been a unanimous resolution in favour of some form of federation between the territories and that there had been a discussion in general terms on the form of constitution. The Conference decided that a committee of technical experts should be formed to frame a constitution and decide on financial arrangements : that a further conference should discuss the Committee's recommendations, after which a referendum should be held in the three territories : and that following the referendum, a further meeting of the full Conference should be held to decide the method of approach to the United Kingdom Government. Little further progress had, however, been made by the end of the year.

A number of meetings was held throughout Northern Rhodesia by Sir Stewart Gore Browne, Nominated Unofficial Member representing African Interests, and by the two African Members of Legislative Council, to discover the Africans' reactions towards federation. It soon became clear that African opposition to any proposal for federation of the three Central African Territories was very strong. The fact that no African was invited to the Victoria Falls Conference and that the Prime Minister of Southern Rhodesia had made it clear that no provision for African representation was made in the plan for a Federal House of Representatives had served to harden African opposition to federation, and throughout the year this opposition increased and became more vocal.

On the 24th of November, Mr. Welensky introduced the following Motion in Legislative Council : " That in the opinion of this House, the time is opportune for His Majesty's Government to take the lead

in creating a Central African Federal State". After a very full debate, during which Mr. Welensky, Chairman of the Unofficial Members' Association and chief protagonist of Federation in Northern Rhodesia, admitted that serious fundamental difficulties had prevented a Constitution from being drafted, and that assistance from the United Kingdom Government was therefore sought, the Motion was carried by nine votes to five, all Official Members abstaining from voting. The four representatives of African Interests, and one Elected Member, Mr. F. Morris, voted against the Motion.

Within Northern Rhodesia two important constitutional issues, both affecting the position of Unofficial Members of Executive Council, were decided during the year.

The first related to the agreement reached as a result of discussions held at the Colonial Office in July, 1948, which laid down that the views of Unofficial Members would carry the same weight in Executive Council as they do in Legislative Council, subject to the Governor's reserve powers. Doubts had arisen as to the interpretation of this agreement, and in order to make the intention quite clear, the Secretary of State, in April, 1949, authorised the issue of the following statement :

"The Secretary of State has agreed, in consultation with His Excellency the Governor and the Unofficial Members of the Legislative Council of Northern Rhodesia, that the conclusion reached in the London discussion last July that the views of the Unofficial Members of the Executive Council will carry the same weight in Executive Council as they do in the Legislative Council, subject to the Governor's reserve powers, should be understood to mean that, without prejudice to the constitutional position of the Executive Council, the Governor will accept the advice of the Unofficial Members of the Executive Council when the four Unofficial Members are unanimous, except in cases where he would feel it necessary to use his reserve powers.

"At least one of the Unofficial Members of the Executive Council must always be a representative of African Interests.

"In matters where the Governor is doubtful whether the unanimous opinion of the Unofficial Members of the Executive Council is supported by the Unofficial Members of the Legislative Council, the views of the Unofficial Members of the Legislative Council would be sounded by way of a

Motion in the Legislative Council or by discussion at an informal meeting of all Members of the Legislative Council. ”

The second issue concerned the right claimed by the Unofficial Members of the Legislative Council to call for the removal from the Executive Council of an Elected Member who refused to exercise his vote in the latter Council in accordance with the known wishes of his elected colleagues on the Legislative Council.

It was decided that the Unofficial Members had that right, subject to certain safeguards designed to ensure continuity on the Executive Council, independence of judgment and good government.

The Secretary of State and Mrs. Creech Jones visited the Protectorate in April, as part of a tour of Central Africa.

In a fortnight's continuous touring, they managed to visit every Province, and to meet representatives of every section of the population. In a farewell message, broadcast from Lusaka, Mr. Creech Jones said :

“ As I am leaving I would like to . . . say that it has been a wonderful experience to move about the country and to meet so many people . . . I return anxious that Ministers should visit you more frequently and that a closer contact should be made between our officials and people in London and your administration and the people here . . . I have been struck with the possibilities of progress, the potential resources in spite of very considerable drawbacks and the energy which is being displayed in so many fields. Development will move faster as more materials and capital goods and technical staff can come into the country, and as more houses can be built.

“ There is good reason to expect that. I see great promise in the facilities for power . . . the new bridges, improved roads, increased transport facilities, the commodity contracts for markets and prices, the better irrigation and soil conservation, the rising standard of cultivation, the expansion of tobacco and maize, and the demand for minerals. We must try and give security and stability to agriculture and mining and prevent the return of cycles of trade depression which, in the past, have been so depressing and devastating. ”

ECONOMIC

The most important economic development during the year was the agreement between the British South Africa Company and the Northern Rhodesia Government over the Company's mineral rights

in the Territory. After a motion had been passed (Official Members refraining from voting) in Legislative Council in March that "the time is opportune for the introduction of legislation providing for the imposition of a special tax on royalties recovered from minerals in this Territory", the Governor, Mr. Roy Welensky and Mr. G. B. Beckett were invited by the Secretary of State to go to London in June for discussions with the Secretary of State and representatives of the British South Africa Company. At that meeting an agreement was reached on the following basis :

- (a) The British South Africa Company should continue to enjoy its mineral rights in Northern Rhodesia for a period of thirty-seven years from 1st October, 1949 ;
- (b) As from 1st October, 1949, the Company should assign and pay to the Government of Northern Rhodesia 20 per cent. of the net revenue from its mineral rights in Northern Rhodesia. The sum so paid should be regarded as an expense for the purpose of Northern Rhodesian income tax. "Net Revenue" means profits of the Company derived from its mineral rights in Northern Rhodesia calculated in the same manner as for the purpose of Northern Rhodesian income tax ;
- (c) On 1st October, 1986, the Company should transfer its mineral rights in Northern Rhodesia to the Government of Northern Rhodesia free of charge ;
- (d) During the thirty-seven years' period no special tax should be imposed on the mineral royalties as such in Northern Rhodesia ;
- (e) His Majesty's Government should undertake to secure so far as possible that any Government which may become responsible during the thirty-seven year period for the administration of Northern Rhodesia should be bound to these arrangements.

At the time of presentation of the 1950 Budget it was estimated that during 1950 a sum of £540,000 would accrue to the Northern Rhodesia Government.

Drought in the early part of the year caused a partial failure of the maize crop, with the result that production for sale fell from 63,000 tons in the 1948 harvest to 34,000 tons in 1949. Approximately 300,000 bags of maize had to be imported in 1949 to make good the deficiency, and a great deal of it came from hard-currency countries.

In certain rural areas, the crop was so poor that imported maize had to be made available to Native Authorities for sale and in some cases distributed as famine relief. Good rains at the end of the year gave an excellent start to the 1950 crop.

The drought also affected the tobacco crop, but nevertheless at the Fort Jameson sales more than 4,250,000 lb. was sold, realising £500,000, a valuable contribution to the dollar-saving resources of the Territory. The tobacco from North-West Rhodesia was judged to be the best quality offered at the Salisbury sales. Greatly increased acreages were prepared for planting in the 1950 season, both at Fort Jameson and on the line of rail.

Work on the Territory's road communications was continued during the year. In September, the new Kafue Road Bridge, the gift of the Beit Trust to the Government, was formally opened. This bridge, which had seen service as a war-time emergency bridge across the Thames, now forms an important link in Northern Rhodesia's communications with the South.

Rail transport difficulties continued, and were aggravated in March by a washaway of the line near Beira. Deliveries of coal from Wankie were insufficient to meet the needs of the copper mines, and the main boiler furnaces had to be fed with wood. Petrol remained in short supply and rationing was continued.

The cost of living continued its upward trend, and a committee appointed by Government to investigate the question of a cost-of-living allowance for Civil Servants found that it was $7\frac{1}{2}$ per cent. higher in 1949 than in 1946, the year on which the Fitzgerald salary recommendations were based. From 1st July, Civil Servants were therefore granted a cost-of-living allowance of 5 per cent.

In spite of the shortage of coal, the year was a record one for production on the mines. Both the tonnage and the financial return were higher than in 1948, and the devaluation of the pound sterling resulted in an increase in the price paid for copper in the United Kingdom to £140, though this did not take effect until the end of the year. The prosperity of the mines was reflected in general prosperity throughout the Territory. Revenue from income tax was double that in 1948, and the 1950 Budget estimated for higher figures both of revenue and of expenditure than ever before. During the year, the first of the loans necessitated by the Ten-Year Development Plan was raised. Loan stock to the value of nearly £3,000,000 was put on the market in London and completely subscribed in a few minutes.

DEVELOPMENT

In a report on the work of the Development Authority, the Director of Development wrote, at the end of the year, " The period from June, 1948, till the end of 1949 may be reckoned in the evolution of the Ten-Year Development Plan as one of preparation and detailed planning leading up to the full-scale development which is now in progress . . . This preliminary stage . . . may now be regarded as at an end—although some of the schemes are still held up by lack of suitable technical staff and others await the delivery of machinery or equipment. "

Shortage of housing was also a limiting factor in the progress of development schemes, and became so serious towards the end of the year that a directive was issued by Government to all departments that recruiting for posts authorised in the 1950 Estimates would not normally be allowed.

Food Production.

Nevertheless, progress in the three main objectives of the Plan—increased food production, more houses and improved road communications—was considerable. In 1949 the Agricultural Department established the first agricultural training school at Monze, and two others in the Eastern and Northern Provinces were being built at the end of the year. Four new Agricultural Stations were opened, and others extended. Other agricultural developments included the purchase of machinery for a Soil Conservation Unit to assist farmers, and the arrangement of a Government loan to a bush-clearing company to enable them to start up business in the Territory. A comprehensive agricultural research scheme and a series of veterinary research schemes were prepared and applications for Colonial Development and Welfare grants towards the cost of these schemes were submitted to the Secretary of State for the Colonies. A start was made on a small pilot ground-nut scheme on 1,200 acres of land at Mumbwa.

Building.

Despite the shortage of bricks, cement and other materials, particularly during the early part of the year, and the severe rationing of petrol, the Government building programme made good progress. A disquieting feature, however, was the rise in building costs, which was partly due to the high demand for the services of contractors, and the shortage of labour. During the eighteen months ending in May, 1950, 422 housing units will have been built, at an average cost of £2,665 per unit. This was achieved by adopting a standard design

of house for most of the urban areas, by using prefabricated houses both of local and imported materials, and by the provision of a large hostel at Lusaka. A further 300 units of European housing for Government servants will be required during 1950 and 1951 if the Territory's expansion programme is to be maintained.

By the end of the year, a £1,000,000 scheme for building permanent African housing in Local Authority areas and a £500,000 scheme for African Civil Servants' houses were being carried out at centres throughout the Territory and more than 700 African permanent houses were completed by the end of the year. The combined programme of 9,000 houses is scheduled for completion in 1952.

The construction of institutional buildings such as schools, hospitals, etc., has, with certain exceptions, been given a lower priority than the building of houses. Detailed mention of the more important will be found in another part of this Report.

In May and June the services of Mr. C. W. Kiln, an expert on brick production, were loaned to the Development Authority by the Kenya Government. Mr. Kiln made an extensive investigation into the conditions of brick production throughout the Territory and his report and recommendations have been of great value both to Government and to the private manufacturers whom he visited.

Roads.

During the latter part of the year, nine major road contracts, valued at £8,000,000, were let. These works, which are described in detail in another part of this Report, will occupy most of the Territory's road-making capacity for the next two years, and have resulted in the establishment in Northern Rhodesia of new large road construction firms. Owing to rising costs the whole road programme had to be reviewed. It is now clear that an additional £1,000,000 will be required for this programme to be completed and a further £1,000,000 will be needed if the whole route from Livingstone to Ndola is to be made up to Class I standard.

Livingstone Airport.

The runway of the new international airport at Livingstone was completed in November, and work on the terminal buildings was making good progress by the end of the year. The airport is to be opened on 12th August, 1950.

A schedule of development schemes initiated or in progress during 1949 is given overleaf :

DEVELOPMENT SCHEMES INITIATED OR IN PROGRESS
DURING 1949

Title of Scheme	No. of Scheme	Total amount spent up to 31-12-49 £	Amount from Colonial Development and Welfare Funds £	Amount from Northern Rhodesia Development Account £
Health	D847	19,712	19,712	—
African Education ...	D894	141,994	127,503	14,491
Grants—Scouts and Guides Associations	D931	1,500	1,050	450
Research Service Recruitment	R235A	623	623	—
Capital Equipment for Research Service ...	R235	1,624	1,624	—
Extension Services—Field Operations	D1185	7,302	771	6,531
Training for Africans ...	D1142	14,567	11,958	2,609
Capital Works—Extension Services for African Agriculture	D923	20,953	20,953	—
Forestry School	D851	4,035	4,035	—
Capital Works for Forest Development	D1063	5,738	5,738	—
Survey of Timber Resources	D1047	2,442	2,442	—
Visit of Specialist Officers and Training of European Staff	D1062	3,848	3,811	37
Veterinary	D936	35,556	31,615	3,941
Tsetse Control	D595	43,883	43,883	—
Fish Farming	D850	3,414	3,414	—
Tsetse Control—Feira ...	D840	14,638	14,638	—
Rural Development ...	D1104	165,984	53,823	112,161
Rhodes-Livingstone Institute	R31	16,908	16,908	—
Red Locust Control—Abercorn	D552A } 552B	53,162	53,162	—
Central African Broadcasting Scheme	D793	67,800	56,713	11,087
Central African Film Unit...	D891	11,990	10,045	1,945
Rhodes-Livingstone Institute	R187	5,978	5,978	—
Rhodes-Livingstone Institute	R194	2,086	2,086	—
Publications Bureau ...	D993	9,798	8,134	1,664
Sociological Survey—A. L. Epstein	R345	50	50	—
Hydrological Survey of the Bangweulu Swamps ...	D1098 } 1098A } 1098B	2,891	2,891	—
Kafue-Chirundu Road ...	D1194	50,000	50,000	—

PART II

Chapter 1 : Population

Table 1 below gives the population of Europeans, Asiatics, Coloureds and Africans as at Census dates from 1911 to 1946. In Table II, estimates of the European, Asiatic, Coloured and African population are stated as at the middle of each year from 1911 to 1949. The estimates for 1949 must be regarded as provisional. At 30th June, 1949, the European population was estimated as 32,000, the combined Asiatic and Coloured population as 2,800, and the African population as 1,610,000.

The number of European births, deaths, marriages and statistics of infantile mortality shown in Table III, for the period 1938-1949, which are only provisional, show that there were 867 births compared with 801 in 1948, and 169 deaths compared with 156 in 1948. There were twenty-six cases of infantile mortality in 1949 as compared with thirty-five in the preceding year. It is possible, however, that the final figures may exceed the provisional totals.

*Table I.**

POPULATION AT CENSUS DATES

Census Date	Census Results			Population Estimates	
	European	Asiatic	Coloured	Domiciled Indigenous Natives	Total
7th May, 1911 ..	1,497	39	(b)	820,000(a)	821,536
3rd May, 1921 ..	3,634	56	145	980,000	983,835
5th May, 1931 ..	13,846	176	425	1,330,000	1,344,447
15th October, 1946	21,907(c)	1,117	804	1,660,000	1,683,828

(a) Including Coloureds.

(b) Included with natives.

(c) Including 3,118 Polish evacuees in camp.

* The figures given in these tables are taken from the Central African Bulletin of Statistics.

Table II.

ANNUAL POPULATION ESTIMATES, 1911-1949.

(Based on estimates of the British South Africa Company from 1912 to 1923 and estimates of the Northern Rhodesia Government from 1924 to 1945.)

Year Ended 30th June	European	Asiatic and Coloured	African
1911	1,500	(a)	820,000
1912	1,700	(a)	830,000
1913	2,100	(a)	840,000
1914	2,300	(a)	870,000
1915	2,000	(a)	860,000
1916	2,100	(a)	870,000
1917	2,200	(a)	880,000
1918	2,400	(a)	900,000
1919	2,600	(a)	930,000
1920	3,000	(a)	950,000
1921	3,700	200	980,000
1922	3,700	200	980,000
1923	3,700	300	980,000
1924	4,000	300	1,050,000
1925	4,400	400	1,130,000
1926	5,100	400	1,170,000
1927	6,600	400	1,220,000
1928	7,400	500	1,260,000
1929	8,700	500	1,280,000
1930	11,100	600	1,310,000
1931	13,800	600	1,350,000
1932	11,000	700	1,380,000
1933	10,700	700	1,380,000
1934	11,500	800	1,370,000
1935	10,700	800	1,370,000
1936	10,000	900	1,400,000
1937	11,300	1,000	1,430,000
1938	13,000	1,100	1,450,000
1939	13,100	1,300	1,480,000
1940	14,300	1,400	1,500,000
1941	15,100	1,400	1,530,000
1942	14,800	1,300	1,560,000
1943	18,000	1,600	1,580,000
1944	19,200	1,700	1,610,000
1945	20,800	1,700	1,630,000
1946	21,800	1,900	1,520,000
1947	25,100	2,100	1,550,000
1948	28,800	2,300	1,580,000
1949	32,000	2,800	1,610,000(b)

(a) Not available.

(b) Provisional.

Table III.

EUROPEAN BIRTHS, DEATHS, MARRIAGES AND
INFANT MORTALITY, 1938-1948.

Year	Births		Marriages	Deaths		Infantile Mortality	
	No.	Per 1,000	No.	No.	Per 1,000	No.	Per 1,000 Live Births
1938	355	27.31	137	131	10.08	10	20.47
1939	378	28.85	167	108	8.24	7	18.50
1940	520	36.36	187	108	7.55	15	30.06
1941	490	32.45	157	137	9.07	13	26.53
1942	559	37.77	174	131	8.85	17	30.45
1943	501	27.83	182	136	7.56	17	32.69
1944	586	30.52	169	162	8.44	25	42.68
1945	602	28.93	194	153	7.44	21	36.65
1946	650	29.81	211	155	7.11	25	38.46
1947	740	29.48	289	171	6.81	36	48.65
1948	801	27.81	270	158	5.42	35	43.70
1949(a)	867	28.18	265	169	6.12	26	42.63

(a) Figures subject to adjustment.

IMMIGRATION

During 1949, 6,523 immigrants (2,824 males, 2,213 females and 1,496 children) entered the Territory compared with 5,516 immigrants (2,560 males, 1,721 females and 1,235 children) who came to Northern Rhodesia during 1948.

There were 304 Asiatics and thirteen Coloured persons among the 1949 immigrants, and the remaining 6,216 were Europeans, of whom all but 205 were of British nationality. Of the 6,011 immigrants of British nationality, 3,146 were born in the Union of South Africa, 2,197 in the British Isles, 289 in Southern Rhodesia, 355 elsewhere and twenty-four were naturalised British subjects.

Chapter 2 : Occupations, Wages and Labour Organisation

The approximate numbers of persons employed in the principal industries in the Territory in June, 1949, were as follows :

Industry	Europeans	Africans
Mining	4,746	38,140
Agriculture	509	20,300
Domestic service	Nil	23,000
Building and construction	381	15,000
Road work	85	5,000
Transport and communications	445	6,100
Government and local authorities	2,283	6,295
Manufacturing industries	79	3,015
Other industries	513	7,000
Retail trade	1,380	5,534

The average monthly cash wage in the mining industry for Europeans exclusive of bonuses was £61 on the surface and £72 underground.

In addition Europeans received a cost-of-living allowance based on the number and ages of dependants. In December the man-unit was £5 18s. 3*d.* which would be the amount paid to a single man, whilst a married man with no children would have received 1.75 units or £10 12s. 10*d.* Various bonuses based on output were also payable and housing was provided at a low rental varying from £3 to £6 per month.

As a result of negotiations between the African Mine Workers' Trade Union and the copper mining companies, substantial increases in pay were granted to African mine employees, and the average monthly basic wage at the end of the year was £3 1s. 3*d.* on the surface (compared with £2 11s. 0*d.* in 1948) and £3 9s. 4*d.* for underground workers (compared with £3 3s. 0*d.* in 1948). In addition Africans receive free rations and housing which may be valued at approximately £2 10s. 0*d.* per month.

The normal working week in the major industries in the Territory, such as mining, sawmilling and railways, was forty-eight hours, but in the building trade the normal was fifty-two hours although some

employers have shown a tendency to reduce this to forty-eight hours and in one or two cases to forty-five hours weekly.

The cost of living continued to rise during the year and was nearly 50 per cent. above the 1939 level by the end of the year.

The demand for labour continued to exceed the supply throughout the year in all types of employment and consequently there was no genuine unemployment.

Government continued to maintain the Farm Labour Corps during 1949 in order to meet the shortage of farm labour and to safeguard food production. This corps averaged 1,500 men during the year and was in constant demand by farmers to whom squads of eighteen men were hired at a charge of 2s. 3d. per head per day. This price, which is inclusive of rations, was increased to 2s. 9d. per head per day in November.

The flow of labour to Southern Rhodesia remained fairly steady during the year, and during the first nine months of the year 7,965 Northern Rhodesia Africans entered Southern Rhodesia and 7,795 returned to the Territory.

The African Migrant Workers Ordinance came into effect on 1st January, 1949, and this law provided for compulsory family remittances by workers whose families remained in the Territory and also for compulsory deferred pay payable in the home territory.

The number of Northern Rhodesia Africans in the Union of South Africa at any one time during the year was estimated at between 7,000 and 8,000. The Witwatersrand Native Labour Association Limited continued to recruit Africans of Northern Rhodesia under licence for work on the gold mines in South Africa and the quota of labourers permitted to be recruited was again restricted to 3,500.

In 1949 there were four African trade unions in existence. These were :

	<i>Membership</i>
1. Northern Rhodesia African Mineworkers' Trade Union	19,000
2. Northern Rhodesia African Shop Assistants' Trade Union	1,300
3. Northern Rhodesia African Drivers' Trade Union	1,700
4. Northern Rhodesia Contractors' African Employees Association	2,000

1. *The Northern Rhodesia African Mineworkers' Trade Union.* Claims for increase in wages for all African employees on the Copperbelt were submitted by the Union. An agreement was finally reached, at conciliation, by means of which the Union made substantial gains.

2. *The Northern Rhodesia African Drivers' Trade Union.* Direct negotiations between the Union and the Associated Chambers of Commerce and Industry for wage increases failed and the matter was referred to conciliation. This claim was still under negotiation at the end of the year.

3. *The Northern Rhodesia Contractors' African Employees Association.* At the end of the year members requested a meeting with employers for the purpose of negotiating an agreement on wages and conditions of service. It is anticipated that negotiations will be opened in the very near future.

As a result of the development of African trade unions, employers in the Territory realised the need for organisation on their side. The Associated Chambers of Commerce has been expanded to include industry and is now known as The Associated Chambers of Commerce and Industry. It has a department whose function it is to conduct all negotiations on behalf of the Chambers with the trade unions. The copper mining companies are not members of this Association.

In 1949 the Labour Department was amalgamated with the Mines Department under the title of "Department of Labour and Mines". Before that it had been concerned only with matters concerning African labour. To-day it is responsible for all labour affairs including those concerning Europeans.

The principal labour legislation passed in 1949 consisted of the Trade Unions and Trade Disputes Ordinance and the Industrial Conciliation Ordinance. The object of the first of these ordinances was to include in one ordinance the various Imperial Acts which had been extended to apply to this Territory; to repeal the Trade Disputes and Trade Unions Act of 1927 in its application to this Territory; and to apply legislation in accordance with local circumstances.

Chapter 3 : Public Finance and Taxation

The comparative statement of revenue reflects the growing prosperity of the Territory during the years 1944-1949, in which there have been no substantial increases to the customs tariff, income tax or other revenue earning charges.

The large increase of revenue has made it possible for existing services to the European and African communities to be greatly expanded and in particular annual expenditure on African Education, European Education, Health, Public Works Extraordinary, Water Development and Irrigation and Civil Aviation, has risen sharply. In addition, there has been considerable expenditure on social and economic services under the head of Development and Welfare Schemes, particularly on Health, African Education, Agriculture, Forestry, Veterinary, Game and Tsetse Control, Rural Development and expansion of the Posts, Telegraph, Telephone and Water Services. Some of these schemes, such as Telegraph and Telephone Development, have been hampered by lack of materials. Other schemes have been assisted by joint expenditure by Northern Rhodesia and Nyasaland or by joint research allocations under the Colonial Development and Welfare Act.

Figures of revenue and expenditure, public debt, assets and liabilities, are as follows :

COMPARATIVE STATEMENT OF REVENUE FOR THE PAST SIX YEARS

Heads of Revenue	1944	1945	1946	1947	1948	1949
	£	£	£	£	£	£
1. Customs	738,790	696,831	806,257	863,377	976,725	1,697,913
2. Licences, Taxes, etc.	2,110,249	2,235,386	1,919,022	2,701,437	4,484,652	7,008,211
3. Fees of Court, etc.	77,394	95,323	72,055	103,251	340,267	488,881
4. Post Office	92,896	104,724	125,301	142,181	164,124	193,551
5. Rent from Government Property	15,162	14,483	18,898	17,652	22,076	19,711
6. Interest and Loan Repayments	154,507	119,893	144,474	172,797	194,772	262,886
7. Miscellaneous	123,072	134,908	172,486	238,558	94,040	168,530
8. Lusaka Electricity and Water Undertakings	20,764	23,975	24,566	26,460	31,059	34,607
	3,332,834	3,425,523	3,283,059	4,265,713	6,307,715	9,874,290
9. Land Sales	5,658	6,984	7,012	12,926	9,247	13,467
10. Grants under Colonial Development and Welfare Act	120	1,000	72,070	24,287	139,174	208,743
11. Reimbursements: Development and Welfare Schemes	—	—	—	136,804	259,381	487,363
12. Appropriation from General Revenue Balance	—	—	—	94,402	—	—
Total Revenue	3,338,612	3,433,507	3,362,141	4,534,132	6,715,517	10,583,863

COMPARATIVE STATEMENT OF EXPENDITURE FOR
THE PAST SIX YEARS.

Head of Expenditure	1944	1945	1946	1947	1948	1949
	£	£	£	£	£	£
1. Charges on Account of Public Debt	175,437	129,463	131,130	206,921	168,537	168,031
2. Pensions and Gratuities	97,264	116,536	108,033	127,522	136,603	153,376
3. The Governor	8,411	7,885	8,550	13,317	12,528	13,567
4. Accountant-General	10,276	12,317	13,233	16,824	24,462	39,624
5. Administrator-General, Official Receiver and Custodian of Enemy Property	1,480	1,205	1,037	1,846	2,384	3,996
6. African Administration	70,877	62,881	74,025	74,338	93,687	120,968
7. African Education	123,200	149,450	133,232	188,178	277,866	391,148
8. Agriculture	74,761	84,741	60,694	53,530	67,230	92,339
9. Audit	6,555	6,784	8,327	8,170	10,348	14,377
10. Civil Aviation	—	—	—	49,171	90,966	97,070
11. Co-operative Societies	—	—	—	—	(a)	14,205
12. Customs	26,227	55,879	51,949	61,389	87,189	37,823
13. European Education	73,530	75,289	85,549	119,624	144,036	223,312
14. Forestry	(b)	(b)	(b)	20,399	31,064	120,851
15. Game and Tsetse Control	29,610	29,186	28,186	27,702	33,136	53,092
16. Health (including Silicosis Medical Bureau)	183,822	195,458	205,933	215,459	326,981	421,882
17. Income Tax	76,344	83,738	57,257	278,970	18,871	11,002
18. Information	6,220	14,290	9,648	12,653	17,121	27,438
19. Judicial	15,420	16,340	17,472	22,713	27,443	34,555
20. Labour and Mines	12,338	12,097	13,534	17,993	21,530	49,548
21. Legal	5,231	6,092	6,217	7,763	8,980	10,148
22. Loans	(c)	(c)	(c)	(c)	(c)	346,910
23. Local Government and African Housing	—	—	27,167	23,033	38,895	16,610
24. Lusaka Electricity and Water Undertakings	10,665	11,718	24,779	36,536	38,883	48,690
25. Military	105,856	90,006	58,883	51,171	57,041	54,750
26. Miscellaneous Services	303,450	309,659	423,607	748,173	1,332,853	1,895,593
27. Northern Rhodesia Police	88,918	86,829	108,518	126,663	194,372	279,374
28. Posts and Telegraphs	75,478	77,976	92,325	110,451	139,172	183,864
29. Printing and Stationery	14,231	21,733	24,774	40,677	61,224	91,395
30. Prisons	27,355	32,048	39,965	42,613	55,406	74,844
31. Provincial Administration	117,858	117,830	145,033	167,408	225,532	288,875
32. Public Works Department	51,033	64,293	73,190	93,711	126,989	250,010
33. Public Works Recurrent	141,206	164,120	209,280	297,936	210,882	430,255
34. Public Works Extraordinary	171,559	201,896	273,621	406,927	631,807	463,135
35. Secretariat (including Executive and Legislative Councils, Development and Unofficials in charge of Departments)	29,111	38,773	49,390	66,541	92,233	124,412
36. Stores and Transport (including Zambezi River Transport)	21,857	57,361	64,704	166,625	445,291	506,105
37. Subventions	42,991	71,512	38,281	174,050	295,019	109,796
38. Surveys and Land	15,320	18,861	24,883	22,232	26,991	40,124
39. Veterinary	43,727	47,006	48,521	56,676	83,209	85,407
40. Water Development and Irrigation	29,804	(d)	(d)	2,423	77,166	99,251
41. African Labour Corps	15,814	17,294	17,874	37,073	43,635	55,144
42. Emergency Economic Controls	19,670	19,653	15,017	14,457	23,727	35,373
43. Development and Welfare Schemes	562	1,517	109,273	245,109	392,084	772,188
44. Appropriations to Development Account and Reserve Fund	1,000,000	—	—	—	—	2,250,000
Mines	(e)	(e)	(e)	7,004	9,932	(f)
Native Newspaper	2,486	2,631	1,839	(g)	(g)	(g)
Items not repeated	37,872	31,023	13,853	6,161	—	—
Total Expenditure	3,363,826	2,543,370	2,898,788	4,534,132	6,208,455	10,600,457

(a) Included under "Secretariat".

(b) Included under "Agriculture".

(c) Included under "Subventions."

(d) Included under "Public Works."

(e) Included under "Surveys and Land."

(f) Included under "Labour and Mines."

(g) Included under "Information."

DEPOSITS			LIABILITIES			ASSETS		
	£	s. d.	£	s. d.		£	s. d.	
SPECIAL FUNDS:								
Administrator-General, Registrar, Official Receiver and Custodian of Property								
African Farming Improvement Fund	97,307	3 7				2,045,373	15 4	
African War Memorial Bursaries Fund	158,064	1 11				24,257	19 10	
Central Canteen Trust Fund	54,677	10 7				55,560	19 6	
Forest Fund	2,746	2 4				763	13 9	
Gratuities for African Ex-servicemen	61,429	6 7				650,593	14 5	2,776,550 2 10
Harold Help Fund	22,360	1 9						
His Majesty's Government—Interest Free Loans Privately Subscribed	182	16 9						
Income Tax Compulsory Savings	6,754	0 0				20,428	5 5	
Local Authorities Loans Fund	7,363	0 0				67,878	18 2	
Native Treasuries Central Fund	250,000	0 0						97,307 3 7
Native Trust Lands Fund	26,235	17 0						1,264 9 0
Northern Rhodesia Government War Bonds	45,770	14 0						
Police Rewards and Fines Fund	167,170	0 0						
Pollak Bequest	142	18 10						
Post Office Savings Bank	624	7 1						
Prisons Rewards and Fines Fund	662,834	11 4						2,098,616 18 3
Stock Transfer Stamp Duty Fund	154	6 4						
War Savings Certificates	13,444	2 6						
	154,561	12 4						
NORTHERN RHODESIA GOVERNMENT 3% LOAN 1963/65								
Less Expenses and Expenditure	1,731,822	12 11						
RESERVE FUND								
DEVELOPMENT FUND:								
Receipts: Northern Rhodesia Development								
Account	3,540,000	0 0						
Loan	3,241,213	4 4						
Payments: Northern Rhodesia Development								
Account	298,786	15 8						
Loan	2,650,000	0 0						
GENERAL REVENUE BALANCE:								
Balance at 1st January, 1949								
Add Surplus and Deficit Account (excluding Development and Welfare Schemes)								
Less Surplus and Deficit Account (Development and Welfare Schemes)								
Less Depreciation on Investments								

There is a contingent liability of £49,000 in respect of guarantees given by Government, and £23 543 5s. 0d. in respect of the amount by which the liabilities of the Post Office Savings Bank exceed the Assets of the Post Office Savings Bank.

(a) An amount of £169,415 6s. 2d. is outstanding on the Colonial Development and Welfare vote, to be recovered from the Colonial Development and Welfare Fund.

(a) 1,769,035	3	6
£9,762,637	17	2

PUBLIC DEBT AS AT 31st DECEMBER, 1949.

	£	s.	d.
5 per cent. Stock 1950-70, issued 1932 . . .	582,500	0	0
3½ per cent. Stock 1955-65, issued 1933 . . .	1,097,000	0	0
3 per cent. Stock 1963-65, issued 1949 . . .	3,540,000	0	0
	<hr/>		
	£5,219,500	0	0
	<hr/>		

SINKING FUNDS.

	£	s.	d.
5 per cent. Loan 1950-70	289,658	4	6
3½ per cent. Loan 1955-65	273,512	1	5
	<hr/>		
	563,170	5	11
	<hr/>		

INVESTMENTS: SINKING FUNDS.

	£	s.	d.
5 per cent. Loan 1950-70	289,658	4	6
3½ per cent. Loan 1955-65	273,512	1	5
	<hr/>		
	£563,170	5	11
	<hr/>		

Three per cent. Northern Rhodesia Government War Bonds, £167,170. Bonds issued in units of £5 or multiples of £5 at 3 per cent. redeemable ten years from date of purchase at £101 per cent., but may be cashed at par, plus accrued interest, on giving six months' notice. Interest is payable half-yearly.

War Savings Certificates, £154,562. Certificates issued at the price of 15s. having a face value of £1 0s. 6d. after ten years. Certificates may be surrendered and payment obtained with accrued interest at any time prior to the expiration of the period of currency.

CUSTOMS TARIFF

The Customs Tariff of Northern Rhodesia provides for two rates of duty, (i) general rates and (ii) Empire preferential and Congo Basin rates.

Approximately one-third of Northern Rhodesia (the north-eastern portion) lies within the conventional boundaries of the Congo Basin and is subject to the Congo Basin Treaties under which the granting of preferential treatment to goods from any particular country is prohibited. Goods of Empire and foreign origin are admitted into this area at the lower or preferential rates. The Congo Basin area falls outside the scope of the customs agreements mentioned below.

The tariff has remained substantially unchanged since 1938 and it provides for specific rates of duty on practically all foodstuffs and on beer, potable spirits, tobacco, cement, coal and coke, candles, lubrica-

ting oils, paraffin, tyres and tubes, matches and blasting compounds. Other articles are subject to *ad valorem* duties on an f.o.b. value basis or are admitted duty free.

In November, 1947, the customs import duties on many important items, notably essential foodstuffs, blankets, carpets, clothing, piece-goods, footwear and household requisites, were suspended in an endeavour to provide some relief against the rising cost of living. The special duties on beers, spirits, wines, cigarettes and manufactured tobacco, which were first introduced during the war years, were again re-enacted and remained in force throughout the year.

The customs agreements concluded with the Union of South Africa (1930) and Southern Rhodesia (1933) have in the main remained unchanged. They provide for inter-Government transfers of customs duties on goods imported into one territory and subsequently removed to the other. Goods of local production or manufacture, with the exception of certain articles which are subject to customs duty at specially rebated rates, are interchanged without restriction and inter-Government payments on an *ad valorem* basis are made.

EXCISE AND STAMP DUTIES

Excise duty is leviable on spirits, sugar, playing-cards, ale, beer and stout, matches and tobacco manufactured in the Territory. An additional excise duty is paid on cigarettes by means of surtax stamps affixed to the containers. This stamp duty is also applied to all imported cigarettes.

NATIVE TAX

The rates of annual tax vary from the lowest level of 6s. in the remotest rural areas to 15s. in the mining districts. The rate is based on the estimated average earning capacity of adult males in each area and not on an individual income basis.

INCOME TAX

Tax is levied for the year of assessment commencing on 1st April on income accruing in, derived from or received in Northern Rhodesia for the year immediately preceding the year of assessment.

Deductions : Individuals.

From total income the following deductions are allowed in arriving at chargeable income :

- (a) Personal deductions.—£500 for married persons and £250 for unmarried persons.
- (b) Deductions for children.—£120 in respect of each child.
- (c) Deduction for dependants.—The amount expended, with a maximum of £100 in respect of any one dependant.

- (d) Insurance.—The annual premiums paid in respect of insurance on the lives of the taxpayer, his wife or minor children, or for sickness or accident are limited to one-sixth the difference between total income and £250, and further limited to £120.
- (e) Widows, or others similarly situated, who have custody of and maintain a child, receive the allowances and are taxed at the rates applicable to married persons.

Rates of Tax :

<i>Unmarried :</i>	s.	d.
For every pound of the first £500 . . .	2	0
For every pound of the next £250 . . .	4	0
For every pound of the next £250 . . .	4	0
For every pound of the next £250 . . .	5	0
For every pound of the next £250 . . .	6	0
For every pound of the next £250 . . .	7	0
For every pound in excess of £1,750 . . .	7	6

<i>Married :</i>		
For every pound of the first £250 . . .	1	0
For every pound of the next £250 . . .	1	6
For every pound of the next £250 . . .	2	0
For every pound of the next £250 . . .	3	0
For every pound of the next £250 . . .	4	0
For every pound of the next £250 . . .	5	0
For every pound of the next £500 . . .	6	0
For every pound of the next £500 . . .	7	0
For every pound in excess of £2,500 . . .	7	6

The Company rate of tax is 7s. 6d. in the £.

TABLE SHOWING TAX PAYABLE BY INDIVIDUALS.

Income	Unmarried			Married No Children			Married Two Children		
	£	s.	d.	£	s.	d.	£	s.	d.
300	5	0	0	—			—		
400	15	0	0	—			—		
500	25	0	0	—			—		
600	35	0	0	5	0	0	—		
700	45	0	0	10	0	0	—		
800	57	10	0	16	5	0	3	0	0
900	72	10	0	23	15	0	8	0	0
1,000	87	10	0	31	5	0	13	5	0
1,100	107	10	0	41	5	0	20	15	0
1,200	127	10	0	51	5	0	28	5	0
1,300	150	0	0	63	15	0	37	5	0
1,400	175	0	0	78	15	0	47	5	0
1,500	200	0	0	93	15	0	57	15	0
2,000	362	10	0	206	5	0	146	5	0
2,500	550	0	0	356	5	0	284	5	0
3,000	737	10	0	531	5	0	447	5	0

ESTATE DUTY

Rates of estate duty are as follows :

Where the Principal Value of the Estate exceeds £	And does not exceed £	Estate Duty shall be payable at the rate of
2,000	5,000	1 per cent.
5,000	7,500	2 per cent.
7,500	10,000	3 per cent.
10,000	20,000	4 per cent.
20,000	40,000	5 per cent.
40,000	70,000	6 per cent.
70,000	100,000	7 per cent.
100,000	200,000	8 per cent.
200,000	300,000	9 per cent.
300,000		10 per cent.

Where an estate is inherited by a surviving spouse, half the above rates only are charged on the first £10,000.

Chapter 4 : Currency and Banking

Southern Rhodesia coin and currency notes issued by the Southern Rhodesia Currency Board are the only currency in circulation in Northern Rhodesia. Since this currency circulates throughout both the Rhodesias and Nyasaland, it is impossible to calculate the amount in circulation in Northern Rhodesia alone. An estimate can, however, be arrived at by taking currency on issue to each territory and making adjustments for inter-territorial bank transfers advised by the banks to the Southern Rhodesia Currency Board. It is estimated that at the end of 1949 there was £1,643,595 in circulation in currency notes and £397,707 in silver, cupro-nickel and bronze coins.

Foreign currency is not legal tender and there is no local currency. Bank of England and United Kingdom currency notes are no longer accepted and United Kingdom silver and copper are being withdrawn from circulation, although there is still about £2,000 worth in circulation. As Africans from the Territory are employed to some extent in Tanganyika and South Africa, a certain amount of East African notes and coins, and of South African silver is exchanged at par for Southern Rhodesian money and repatriated.

Banking business in Northern Rhodesia is conducted by the Standard Bank of South Africa Limited and Barclays Bank (Dominion, Colonial and Overseas), the former having nine branches and the latter having nine branches and one agency in the Territory. There is no Land Bank, but a Land Board financed by Government makes long-term loans to farmers against security of title deeds.

The Barclays Overseas Development Corporation and the Standard Bank Finance and Development Corporation, subsidiaries of Barclays Bank (Dominion, Colonial and Overseas) and the Standard Bank of South Africa Limited respectively, provide finance for purposes of agricultural and industrial development and loans to local government bodies of a type which a commercial bank cannot be expected to undertake.

POST OFFICE SAVINGS BANK

During the year the activities of the Savings Bank were extended to the Chingola Compound, Chingola Mine, Kitwe Mine and Mufulira Mine, bringing the total number of branches to forty-six.

New accounts opened totalled 5,551, and 1,619 accounts were closed, increasing the number of depositors from 18,788 to 22,720.

Transactions for the year compared with those for 1948 are given below :

Deposits			1948	1949
Number	.	.	28,718	33,955
Amount	.	.	£306,936	£400,627
Withdrawals			1948	1949
Number	.	.	17,995	21,411
Amount	.	.	£182,190	£250,997

The final figures for 1949 are not yet available but it is estimated that the balance due to depositors at the 31st December, 1949, will be in the neighbourhood of £682,755 as against £519,890 at the end of 1948.

War Savings Certificates.

Repayments during 1949 were 18,060 units of £13,545 face value, the interest added being £2,345 19s. 11d.

Chapter 5 : Commerce

Northern Rhodesia during the last eleven years has had a favourable visible balance of trade. This has been especially marked in the last three years, the favourable balance in 1949 being not far short of £12,000,000.

Exports increased at an even faster rate and in the year under review exceeded £33,000,000, a gain of more than £4,500,000 on 1948 and nearly £12,000,000 above 1947. Copper in its various forms accounted for about 84 per cent. of the 1949 total and lead and zinc about $9\frac{1}{2}$ per cent.

The most valuable single class of imports into Northern Rhodesia, metals and metal manufactures, increased substantially in 1949 to £8,430,694 compared with £5,767,369 in the whole of the previous year. The 1949 total included mining, electrical, agricultural and industrial machinery worth about £3,240,000, mainly from the United States and the United Kingdom, motor vehicles, over £1,000,000 from the same sources, and bicycles and spare parts nearly £280,000, from the United Kingdom.

Fibres, yarns and textiles worth £3,273,888 in 1948 increased in value to £3,859,250 in 1949, of which cotton piece goods from the United Kingdom accounted for more than £1,500,000.

In order of importance foodstuffs ranked third amongst Northern Rhodesia's imports in 1949, totalling £2,123,494 compared with £1,484,908 the year before. Included in the 1949 total were maize from the Union of South Africa and the Belgian Congo worth more than £500,000, flour worth about £208,000 from Southern Rhodesia, sugar from Southern Rhodesia, about £180,000, cassava meal, more than £150,000, from the Belgian Congo and preserved milk, nearly £90,000, from the United States and the Netherlands.

Imports of minerals, earthenware and glassware increased substantially from £796,936 in 1948 to £1,164,561 last year. Coal from Southern Rhodesia accounted for nearly £300,000 of the 1949 total, cement from the United Kingdom, Belgium and Southern Rhodesia was worth about £285,000 and asbestos manufactures more than £160,000.

In the class oils, waxes, resins and paints which totalled £989,050 in 1949 (£764,262 in 1948) petrol and aviation spirit worth almost £200,000 was imported from Iran.

In 1949 nearly 81 per cent. of all Northern Rhodesia's imports were supplied by British countries and just over 19 per cent. by foreign countries. The corresponding figures in 1948 were British countries more than 79 per cent., foreign countries almost 21 per cent.

The United Kingdom was the chief source of supply in 1949 and her share of the local market increased from £4,887,789 in 1948 to £7,278,902. The main imports from the United Kingdom were cotton piece goods, all types of machinery, motor vehicles, bicycles and spare parts and farm tractors.

Consignments from the Union of South Africa valued at £4,252,788 in 1948 rose in 1949 to £5,583,099 and included mining machinery, maize, blasting compounds, motor vehicles, outer garments and shirts, asbestos manufactures and paint.

Supplies from Southern Rhodesia valued at £2,475,030 in 1948 increased in value in 1949 to £2,995,741 and covered a wide range of commodities of which the chief items were coal, sugar, flour, clothing, cement, asbestos and manufactures and soap.

The main foreign source of supply in both 1948 and 1949 was the United States, consignments from which rose in value from £1,966,466 to £2,177,059 although her share of the Northern Rhodesia market declined from about 12.6 per cent. to 10.2 per cent. In both years the main imports from this source were mining and other machinery, motor vehicles and second-hand clothing.

Imports from the Belgian Congo, valued at £266,053 in 1948, increased to £574,007 last year and consisted mainly of maize and cassava meal.

As in 1948 the United Kingdom in 1949 remained by far Northern Rhodesia's best customer, although there was a decline in domestic exports to that market from £18,985,022 to £18,592,770. The 1949 total consisted almost entirely of copper, lead, cobalt alloy, zinc, tobacco and vanadic oxide.

Consignments to the Union of South Africa in 1949 were less valuable than during the previous year, £2,901,772 as compared with £2,991,127. Such exports in 1949 were mainly copper (wire bars and bar and ingot), zinc and lead with, in addition, unmanufactured wood and tobacco.

Australia took £980,097 last year as against £931,924 in 1948, nearly all of which, in both years, was blister copper. Exports to Southern Rhodesia increased substantially from £404,522 to £822,009 (tobacco, cattle hides and wooden railway sleepers), and India purchased £771,618 (zinc, blister copper, electrolytic copper, wire bars and lead) as compared with £597,554 in 1948.

Purchases by the United States were very substantially greater in 1949 than in the previous year, being valued at £4,856,666. In both years such purchases were almost entirely blister copper.

Consignments to Sweden increased from £1,540,728 to £1,757,223, in both years almost entirely electrolytic copper (wire bars), and Belgium took £1,207,497 in 1949 (blister copper, zinc and copper slimes) as compared with only £63,855 in 1948.

Blister copper in 1949 accounted for more than three-fifths of all Northern Rhodesia's exports of domestic produce, the total consigned from the Colony amounting to 202,457 short tons valued at £20,863,015 as compared with 175,455 tons worth £17,553,357 in 1948. The United Kingdom took nearly two-thirds of these exports (£13,494,033), more than one-fifth went to the United States (£4,855,812) and the remainder to Belgium, Australia, India, France and Germany.

Exports of copper (electrolytic and wire bars) moved up from 57,426 tons, worth £5,615,648, in 1948 to 60,950 tons, totalling £6,037,622, last year. The United Kingdom (£3,146,930), Sweden (£1,745,261) and the Union of South Africa (£1,108,001) took practically all the copper exported in this form.

Although less zinc was exported in 1949 than in the year before, 508,567 centals as against 520,872 centals, the 1949 total was worth considerably more, £1,931,279 compared with £1,522,355. These exports are widely distributed, the heaviest purchasers last year being the Union of South Africa (£866,485) and India (£449,023). Other buyers of zinc were the Netherlands, the United Kingdom, France, Italy and Belgium.

More tobacco was exported from Northern Rhodesia in 1949 than in the previous year, 6,088,554 lb. valued at £754,014 compared with 5,047,446 lb. worth £560,844. Nearly 95 per cent. of these exports went to Southern Rhodesia and the United Kingdom in 1949.

CO-OPERATIVE SOCIETIES

The year 1949 has been one of considerable expansion, the number of societies having almost doubled during the year (from thirty-five at the end of 1948 to sixty-nine at the end of 1949). From its establishment, the Department of Co-operative Societies has laid the greatest stress upon the importance of "self-help" in encouraging the

formation of any type of co-operative society, and it is now the fixed policy of the Department to insist that initial finance comes from those who wish to form societies.

The following table illustrates the number of societies registered under their various types together with a comparison with 1948 :

Type of Society	Number Registered at 31-12-48	In formation 31-12-48	Number Registered at 31-12-49	In formation 31-12-49
Consumers (European) . . .	5	1	6	—
Consumers (African) . . .	8	8	17	6
Producers Marketing (Euro- pean) . . .	6	—	6	—
Producers Marketing (African)	6	2	23	12
Supply Societies Wholesale (European) . . .	—	—	—	—
Supply Societies Wholesale (African) . . .	2	2	4	1
Credit (European) . . .	1	—	1	—
Thrift and Loan (African) . .	6	3	10	1
Better Living (African) . . .	1	—	1	—
Building Society (European) .	—	—	1	—
	35	16	69	20

The development envisaged for the Eastern Province in last year's report has progressed and, on the principle of "reinforcing success", every effort is being made to build up the co-operative movement and widen its field. The movement consists mainly of the agricultural producer type of society, and it is through this that the greatest help can properly be given by co-operation to the rural population of the Territory.

The staff of the department was increased during the year by two European co-operative supervisors, one being paid out of development funds and attached to the department for administrative purposes. One of these officers was posted to Mongu in Barotseland, with the prime aim of stimulating native handicraft work and village industries in general. The other officer was posted at the end of the year to Kawambwa, where it is hoped there will be an intensive development programme well under way by the middle of next year.

There is now no doubt that co-operative enterprise has taken a firm hold in Northern Rhodesia, especially in the rural areas.

PRICE CONTROL

During the year, 1949, the Department of Price Control, which has now a full establishment of experienced officers, continued its activities. Prices of consumer goods, particularly all types of food-stuffs (with the exception of luxuries), clothing, footwear and general

household necessities have been kept under rigid control. The official cost-of-living index figure has been kept within reasonable limits when comparison is made with surrounding territories.

Practically the whole of the Territory has been toured by the department's officers during the year, and continuous inspection has been carried out in all the larger towns on the railway line and the Copperbelt.

It was hoped that a gradual relaxation of control would have been possible, but due to continuous shortages and rising prices of consumer goods, it has been found necessary to continue the activities of the department for the year 1950.

COMPANY REGISTRATIONS

There were forty-eight new registrations of local companies in 1949 for a total amount of £2,100,200, compared with forty-five companies registered in 1948 for £1,217,300. Twelve existing companies increased their capital by £368,755 in 1949, in comparison with fifteen companies who increased their capital by £1,086,014 in the previous year. There were five foreign companies registered in 1948 and ten in 1949. No details of their nominal capital are available.

Local companies registered during 1949 were as follows: commerce and finance, twenty-six companies, £834,000; secondary industry, eleven companies, £1,128,200; building and contracting, eight companies, £78,000; mining, one company, £25,000; agriculture, one company, £20,000; transport, one company, £15,000.

One company was voluntarily wound up during 1949.

During the year there were 215 mortgages registered for £815,939, as against 178 mortgages registered, £794,339, in 1948.

There were nine Bills of Sales valued at £8,410 registered during 1949 as against three Bills valued at £1,640 in 1948.

Six persons were adjudicated bankrupt in 1949 compared with only three during the previous year.

Chapter 6 : Production

AGRICULTURE

Maize yields were adversely affected by drought in the early part of the growing season. Maize to the extent of 28,288 tons was sold from European farms, and approximately 9,500 tons were retained for local consumption. The total acreage planted to maize was 74,040, and the average yield was approximately 1,000 lb. per acre. African producers sold 6,101 tons maize in the “controlled areas”. The price delivered to the Maize Control Board’s depots on the railway line was £1 7s. 0d. per bag of 200 lb. plus the cost of the bag. African growers received a flat price of 18s. 0d. per bag at all buying stations within the controlled area, irrespective of distance from the railway line. From the difference between this and £1 7s. 0d. transport costs to the depots on the railway line were met and the balance credited to a Farming Improvement Fund.

MAIZE PRODUCTION FOR SALE

(Tons of 2,000 lb.)

Year	European	African	Total
1945 . . .	27,300	20,200	47,500
1946 . . .	26,800	17,200	44,000
1947 . . .	19,000	5,400	24,400
1948 . . .	34,300	29,600	63,900
1949 . . .	28,300	6,100	34,400

This table illustrates the relative stability of European maize production, which is organised on the basis of a fairly large acreage per farm and takes place for the most part on soils well suited to maize production. The production from the native areas, which represents the surpluses of a large number of small growers whose primary aim in production is to feed themselves and their families, and which is not confined to the most suitable soils, is naturally much more sensitive to seasonal variations.

The production is consumed internally, mainly in the mining areas. The present rate of consumption is estimated at about 65,000 tons per annum. No account is taken in this figure of the rural population.

Wheat production, which is carried out under irrigation mainly in the Lusaka district, has almost vanished. Only about 147 tons came on the market in 1949. The following table shows clearly how the decline which began with the disastrous drought and frost of 1947 has continued, despite a rise in price and a good season in 1948.

WHEAT PRODUCTION FOR SALE
(Tons of 2,000 lb.)

1945	.	.	.	.	.	2,550
1946	.	.	.	.	.	2,475
1947	.	.	.	.	.	500
1948	.	.	.	.	.	900
1949	.	.	.	.	.	150

The consumption of wheat in the Territory is at present estimated to be in the neighbourhood of 5,500 tons per annum and is increasing. The price to the grower was £2 5s. 0d. per bag of 200 lb.

Although drought in the early part of the season made planting operations difficult, 1949 was a good year for tobacco in both the Eastern and Western areas. In the Eastern area the flue-cured Virginian crop reached a record of 4,255,000 lb. which sold for a total of £574,000, an average of about 32 pence per lb. In the Western area 1,800,000 lb. of flue-cured Virginian leaf were sold for £222,500, an average of about 29.6 pence per lb. The total production of flue-cured tobacco from the Territory was thus over 6,000,000 lb., all of which was exported. The expansion which has taken place during the past five years is shown by the following table :

TOBACCO PRODUCTION
(Virginia Flue-cured Leaf)

		Eastern	Western	Total
1945	.	2,207,000 lb.	243,000 lb.	2,450,000 lb.
1946	.	2,823,000 lb.	307,000 lb.	3,130,000 lb.
1947	.	2,928,000 lb.	500,000 lb.	3,428,000 lb.
1948	.	2,988,000 lb.	781,000 lb.	3,769,000 lb.
1949	.	4,255,000 lb.	1,800,000 lb.	6,055,000 lb.

Turkish tobacco production, which grew from less than 100,000 lb. prior to 1945 to over 1,000,000 lb. by 1947, has declined as rapidly as it grew. The total crop in 1949 was 97,000 lb. and its value approximately £14,000, just over 34 pence per lb.

The first school for training Africans as agricultural assistants opened at Monze in the Southern Province during the year. Two similar schools, one in the Northern and one in the Eastern Province, are under construction and will be opened in 1950.

ANIMAL HUSBANDRY

Although the rainfall in the early part of the year was abnormally low, there were no losses of cattle from drought, and numbers of livestock continued to increase. It was still necessary, however, to import cattle and other stock to augment the locally produced meat supply. Dairy production increased despite the difficulty in obtaining the required numbers of well bred dairy cattle. Egg production is fully equal to the demand, although seasonal shortages are experienced.

European interest in cattle ranching, which had flagged owing to increased costs and scarcity of labour, revived sharply when the prices of cattle were increased. Much work remains to be done before the African owner puts his livestock on a commercial basis, but interest is awakening. The ratio of African owned cattle to European owned is approximately four to one.

The only serious outbreak of disease during the year was of anthrax in Barotseland, which was rapidly controlled by inoculation. Mortality from East Coast fever in the Abercorn and Fort Jameson districts has been considerably reduced.

The Co-operative Creameries of Northern Rhodesia continued to operate successfully and extended their activities to include retail delivery of fresh milk. During the year an African co-operative ghee factory was established near Lusaka.

Thirty-one students graduated from the African Veterinary Assistants' School, and all were taken on to the staff of the Veterinary Department.

FACTORIES

Greatest factory production in Northern Rhodesia is saw-milling and woodworking. Organisations range from that of the Zambesi Saw Mills, Limited, by far the largest factory in the Territory, to an individual European employing a few Africans. Other big company activities were the workshops and running sheds of the Rhodesia Railways Limited, and the production of oxygen and dissolved acetylene by a local subsidiary of the British Oxygen Company, Limited. Two other large factories are the Government-controlled Cold Storage Control Board and the Northern Rhodesia Tobacco Co-operative Society, Limited. Otherwise production was mostly by small factories owned by individuals, syndicates or companies. The demand for building materials has resulted in the establishment of concerns producing bricks and ferro-concrete products, such as pipes, on a considerable scale. Apart from such items as hardwood railway sleepers, exported by the Zambesi Saw Mills, Limited, tobacco and some parquet flooring, plywood and veneer, factory production in 1949 was almost entirely for local consumption.

A new mill established by the Northern Rhodesia Milling Company Limited, at Lusaka, came into operation in December with an hourly capacity of 2,000 lb. of white flour, 2,000 lb. of brown flour and 12,000 lb. of maize meal.

FISH

Statistics of fish production are not yet available, though it may be said that fishing is a leading industry for the Africans and forms the basis of the economy of large parts of the Territory, particularly in the Bangweulu, Luapula and Mweru areas.

Northern Fisheries, Limited, the only firm so far directly concerned with the Territory's fisheries, continued its operations on Lake Tanganyika. In other parts fishing, chiefly in the Mweru, Luapula, Bangweulu, Kafue and Zambezi regions, is in the hands of individual Africans dealing chiefly in the dried fish trade to line-of-rail centres. A start has, however, been made in introducing the co-operative movement to these fishermen, and there are good hopes of progress.

Investigation and conservation work in the Bangweulu, Luapula and Mweru fisheries continued to make progress. The exceptional drought, which resulted in record low water levels, necessitated drastic restrictions of fishing towards the end of the year. Initial exploitation of the fish in the Mweru Marsh proved the fruitfulness of that source of fish supplies.

Experiments in fish farming have indicated that a yield of some 1,000 lb. of Tilapia an acre per annum, without feeding the fish or fertilising the water, is quite practicable. This finding confirms fish-farming as an economic proposition, it being already proved in the Belgian Congo that, with feeding, yields up to 4,000 lb. an acre per annum are readily obtainable.

The project for the Fisheries Research Station has, unfortunately, had to be postponed pending provision of the necessary funds from the Colonial Development and Welfare Research Votes.

FORESTRY

Although woodland covers about 40 per cent. of Northern Rhodesia's total area of 290,000 square miles, the exploitable resources of the Territory in timber are comparatively small. In 1949 the Forest Department was obliged to devote most of its energies to the primary duty of controlling the extensive woodcutting that is in progress round the Territory's industrial centres, where the diminishing resources might all too easily be frittered away. Nevertheless, its second duty was not neglected: schemes of restocking and planting were started

which in due course may help to make up for many years of overcutting in the past. The department's third duty—which is to provide for the future by demarcating and protecting a large number of forest reserves—had perforce to go by default, for fresh men and materials had to be gathered before undertaking this most necessary task.

In 1949, new forest offices were opened at the headquarters of four out of the six provinces of the Territory. Three of them serve provinces where no organised forestry has been done before. The Colony's first tree planting scheme on a commercial scale was started at Chichele, near Ndola ; a training school for African forest rangers and forest guards was opened, and a survey of the timber resources of the Territory was carried out by a self-contained timber survey unit.

The timber survey unit spent the latter part of the dry season accompanying a visiting ecological expedition of five scientists from Oxford under Mr. T. G. Morison. The combined parties made intensive ecological analyses of selected sites in Mumbwa, Serenje and Ndola districts. The unit then spent the last two months of the year working in Balovale and Kabompo districts. Forests lying within twenty miles of the Zambesi, the Kabompo and the Dongwe rivers were investigated, since it appeared that they might be exploitable by saw mills along these rivers, and the timber despatched down the Zambesi. An area of 3,500 square miles was covered.

Enumeration surveys in the Rhodesian teak forest in Sesheke district covered 122 square miles. Some of these stocktaking surveys were done in the forest ahead of Zambesi Saw Mills' cutting at one per cent. ; the rest in two forests near Sesheke at two per cent.

Northern Rhodesia's woodlands are poorly stocked, especially in sawlogs. Flat country, a long dry season, high prices, and great distances by rail from other sources, are the factors which keep local timber supply in an uneasy economic balance with demand.

Rhodesian teak forests were protected intensively with internal fire-breaks. The total length of the fire-breaks constructed or maintained in these forests was 578.7 miles (a greater distance than from the Victoria Falls at Livingstone to the Congo frontier at Ndola). Roads (and their maintenance) were included in this fire-break system to the length of 396 miles. In addition, 582 square miles of similar Rhodesian teak forests were protected by clearing and burning-off belts round their perimeters. The efficiency of perimeter burning, which is carried out mainly by forest indunas (who are local village headmen invested with certain powers and protective functions under the Barotse forest orders), was inspected with the use of aircraft.

The problem of sawing extremely hard timber of dry fire-killed Rhodesian teak (*Baikiaea plurijuga*) was investigated by Mr. P. Harris from the Forest Products Research Laboratory of the United Kingdom.

To house the new training school, the buildings of a school which had been abandoned by the African Education Department at Mwekera, sixteen miles outside the Territory's largest township of Kitwe, were taken over and renovated. A European instructor was appointed on transfer from Provincial Administration, an African schoolmaster was seconded from the Department of Education, and an African forest ranger instructor was posted to the school at the end of the year. The post of senior forest officer, to take charge of the training, remained vacant. The difficult task of initial organisation was undertaken by the forest instructor, unaided, except for occasional supervision from the conservator.

Once again, as for so many years past, the Forest Department cost the taxpayer nothing. Exceptional woodcutting by the mining companies brought an exceptional revenue. In 1949 the Government accepted the principle that money paid for cutting down forests should be used for putting forests back, and it agreed that forest and land-protection is a service that the State should carry independently of the revenue from forest exploitation. Authority was, therefore, given to set up a Forest Regeneration Fund.

The payment into the Fund for the year 1948 was £60,098. The figure for the year 1949 is likely to exceed £65,000.

MINES

The weight and value of the minerals produced during the year were as follows :

Mineral	Weight	Value £
Gold	1,177 oz.*	11,861*
Silver	134,920 oz.	28,257
Cobalt alloy (37.71 per cent. Co) .	27,124 cwt.	645,273
Copper (blister)	194,889 tons	24,052,504*
Copper concentrates (20.79 per cent. Cu)	296 tons	6,894
Copper (electrolytic)	64,413 tons	8,067,303*
Copper (other).	27 tons	3,034
Iron ore (64.57 per cent. Fe) . . .	1,721 tons	1,610
Lead	13,945 tons	1,352,760*
Manganese ore (11.66 per cent. Mn) .	3,975 tons	5,960
Selenium	20,958 lb.	10,479
Tin concentrates (72 per cent. Sn*) .	9.47 tons*	3,711
Vanadium pentoxide	269 tons	181,512
Zinc	22,850 tons	1,871,758*
Limestone	106,824 tons	48,070
Mica	7,627 lb.*	2,712*
Silica rock	1,203 tons	376
Total Value		£36,294,074*

* Subject to adjustment.

The total value of minerals produced in the Territory up to the 31st December, 1949, was, subject to final adjustment, £248,357,643.

All the mineral production except the tin concentrates and mica and some of the gold and limestone was by five large mining companies. No gold, silver, cobalt or selenium mining company operated as such, but those metals were recovered as by-products from one of the copper mines. The iron ore and manganese ore were used by the producer for metallurgical purposes, and the copper concentrates were purchased locally for a similar purpose ; some of the lead was used by the producer for debasing zinc, some of it was fabricated into pipes and sheets for use at the mine and at some of the copper mines ; a further small proportion of it was sold within the Territory. Some lime was exported but most of the limestone was used as a flux in copper smelting. Otherwise the minerals produced were exported to various parts of the world.

Chapter 7 : Social Services

EDUCATION

European Education.

European education is provided by twenty-three Government schools (including one Government aided) and eight private schools. The Government schools are co-educational with the following exceptions : at Lusaka there are separate schools for boys and girls ; at Choma boys are not accepted as boarders, and at Mazabuka girls are not accepted as boarders. Hostels for boarders exist at Choma, Mazabuka and Lusaka, centres of widely scattered farming areas. At Lusaka and the mine townships, the schools provide primary education and secondary education up to Form III. In the mine townships separate infants' schools have been organised. Livingstone and Ndola cover education up to Form II. At other centres Standard II is the highest class in single teacher schools and Standard V in others. Tuition at Government schools is free and remission of hostel fees is granted in relation to the parents' means.

Seven of the eight privately managed schools are convent schools at Livingstone, Lusaka, Broken Hill, Luanshya, Ndola, Kitwe and Chingola. Sakeji private school (Government aided), in the far north-west corner of the Territory, serves a small European farming and missionary community. Another mission school is being established at Madzimoyo. These schools and the convents at Lusaka, Broken Hill and Ndola take boarders. At the Lusaka Convent School, girls can receive education up to Cambridge School Certificate standard.

All the convent schools are primarily for girls, but take a limited number of small boys. Sakeji School is co-educational, as will be Madzimoyo.

Secondary education for Northern Rhodesian children above^e Form III is mainly obtained in the schools of Southern Rhodesia and South Africa, the expense to parents being partly met by Government grants and railway concessions. During 1947, Government took the important decision to provide the full range of academic and modern secondary education within the Territory as soon as possible and the full range is expected to be available in the Territory by January, 1952.

No university or teacher-training facilities exist in Northern Rhodesia, but bursaries, scholarships and loans are available to enable students to obtain such facilities elsewhere. The only adult education provided by Government is in the technical classes for apprentices at five mining centres of the Territory. Commercial subjects are taught in some of the private schools.

Eurafrican and Asiatic education is the responsibility of the European Education Department. There is one Eurafrican school at Fort Jameson with a hostel, and assistance is given to enable Eurafrican children who cannot attend that school to attend schools outside the Territory. Similar assistance is given to Indian children who are unable to attend one of the four " aided " Indian schools in the country.

The following figures show the increase in the number of European scholars enrolled in schools :

	Government Schools	Private Schools	Total
1938 . .	1,048	200	1,248
1948 . .	3,147	886	4,033
1949 . .	3,759	1,052	4,811

African Education.

The total child population of school age is estimated at about 330,000 as compared with the figure of 312,000 given in the 1948 report. This revised estimate is based upon the 1946 census of population report which was published in 1949. The number of maintained and aided schools last year was 1,303 and the enrolment approximately 143,000 ; of this total, 96,871 were boys and 46,558 were girls. The average attendance was 82 per cent.

Of the schools maintained or aided by Government 1,220 were mission controlled ; forty-four were Government schools and thirty-nine were Native Authority schools.

Estimated expenditure rose from £240,685 in 1948 to £378,000 in 1949. In addition a capital expenditure of £152,000 was provided for in 1949.

The number of unaided but inspected schools decreased from 375 in 1947-48 to 331 in 1948-49 and the enrolment from 23,200 to 19,300. It is estimated that about 49 per cent. of the children of school age are attending school, of which 43 per cent. are in aided or maintained schools.

The full primary school course in Northern Rhodesia is one of nine years. A four-year elementary course is followed by a middle-school course for Standards III and IV and then by an upper-school C.A.R.

course of three years at the end of which the Standard VI school leaving certificate is taken. The course allows for one-third of the time to be spent on training in practical subjects such as agriculture, building, carpentry and community service. Very few children complete the full course at present. In 1948-49 there were nearly 126,000 children in the elementary schools, 12,300 in the middle schools and 3,720 in the upper schools.

In May, 1949, 670 boys and forty-seven girls passed the Standard VI school leaving certificate which is the entrance qualification to vocational training with Government departments and to the elementary school teachers' certificate and the Munali Trades School.

The Munali Training Centre, a Government institution at Lusaka, is the only school providing a full secondary academic education for Africans, but during the year a new junior secondary school was opened at Canisius College, Chikuni, under the aegis of the Roman Catholic missions. The enrolment at Munali increased to 203 in the 1949-50 school year and of these fifty-four were in the senior secondary school. In addition there were fifty-five boys and eleven girls at the three other junior secondary schools, two of which are controlled by missions. A start was made in the building of the new African secondary school, some five miles east of Lusaka.

There are no facilities within the Territory for post-secondary education. Fifteen students are attending courses in South African institutions with the aid of Government bursaries and three others are at Makerere College. Thirteen students are taking courses in the United Kingdom and nine are financed from Colonial Development and Welfare funds.

During the year 718 teachers were being trained as junior or elementary teachers and seventy-four were taking higher teachers' courses.

Trades courses in carpentry and building, and in thatching, leather-working and tailoring were continued at the Munali Training Centre. Lukashya Training School in the Northern Province had 100 ex-askari in training, fifty of whom completed their two-year course in December.

The intake into Senga Hill Agricultural Training School was doubled in 1949 and additional financial assistance has been provided for school gardens which are run according to approved methods.

Mass literacy and adult education work will in the future be carried on in Northern Rhodesia by the new type of area school which development teams will have at their disposal. The Education Department is represented on the development teams and therefore the closest co-ordination of work will result. The courses given at the area schools will be determined by the teams, in the light of local needs, and not by central authority.

Two such schools are nearly complete ; others are being planned and built. In 1949 the building, planning and recruiting of staff for the area schools proceeded steadily.

The very important community service camps, designed to afford youths from urban areas an opportunity to make contact with rural life and its problems, continued throughout 1949.

HEALTH

Complete returns of diseases and deaths during 1948 are not yet available, but the causes of deaths in the European community are analysed below :

Group of Diseases	Number of Deaths
Infective and parasitic (excluding malaria and black-water)	10
Malaria	6
Blackwater	3
Cancer and other tumours	15
General diseases	6
Diseases of nervous system	10
Diseases of respiratory and circulatory system	49
Diseases of digestive system	17
Diseases of genito-urinary system	8
Diseases of puerperal state	1
Congenital diseases and diseases of the first year of life	16
Senility	4
Deaths from violence	30
Unclassified	2
	<hr/> 177 <hr/>

It is probable that, in view of the increase of population over 1948, little change in the European birth and death rates will be found in 1949.

The approved establishment of the Health Department, including the Silicosis Medical Bureau, during 1949, consisted of:

- 1 Director of Medical Services.
- 1 Deputy Director of Medical Services.
- 1 Assistant Director of Medical Services.
- 1 Senior Specialist.
- 6 Senior Medical Officers.
- 1 Surgical Specialist.
- 33 Medical Officers.
- 1 Medical Officer of Health.
- 1 Clinic Medical Officer (part-time).
- 1 Nutrition Officer.
- 1 Chief Pharmacist.
- 9 Pharmacists.
- 1 Senior Health Inspector.
- 8 Health Inspectors.
- 6 Medical Inspectors.
- 1 Radiographer.
- 1 Physiotherapist.
- 79 Nursing Staff.
- 1 Health Visitor.
- 15 Ward Attendants.
- 1 Superintendent Tutor.
- 2 Pathologists (with three assistants).
- 1 Medical Entomologist (with three assistants).
- 2 Dental Surgeons and one mechanic.
- 2 Leprosy Superintendents.
- 639 African Staff (partially trained).

Silicosis Medical Bureau :

- 1 Chairman.
- 1 Medical Specialist.
- 4 Medical Officers.
- 2 Radiographers.
- 14 African Staff.

These figures show an increase in approved staff over 1948 of:

- 1 Senior Specialist (offset by one Specialist instead of two).
- 1 Senior Medical Officer.
- 3 Clerks.
- 3 Medical Inspectors (two being for Civil Aviation Department).
- 20 Nursing Staff.
- 1 Radiographer.

Hospital and clinic facilities in 1949 were :

- 14 Government African Hospitals.
- 7 Government European Hospitals.
- 4 European Child Welfare Clinics.
- 8 General Urban Clinics for Africans.
- 63 African Rural Dispensaries.
- 4 Mining Companies' European Hospitals.
- 4 Mining Companies' African Hospitals.
- 10 Mining Companies' Clinics, which are run in conjunction with Government.
- 1 Government Leprosy Settlement.
- 10 Mission Leprosy Settlements, subsidised by the Government.
- 87 Mission Stations (ten having a doctor on the staff).

All Photos : Northern Rhodesia Information Department



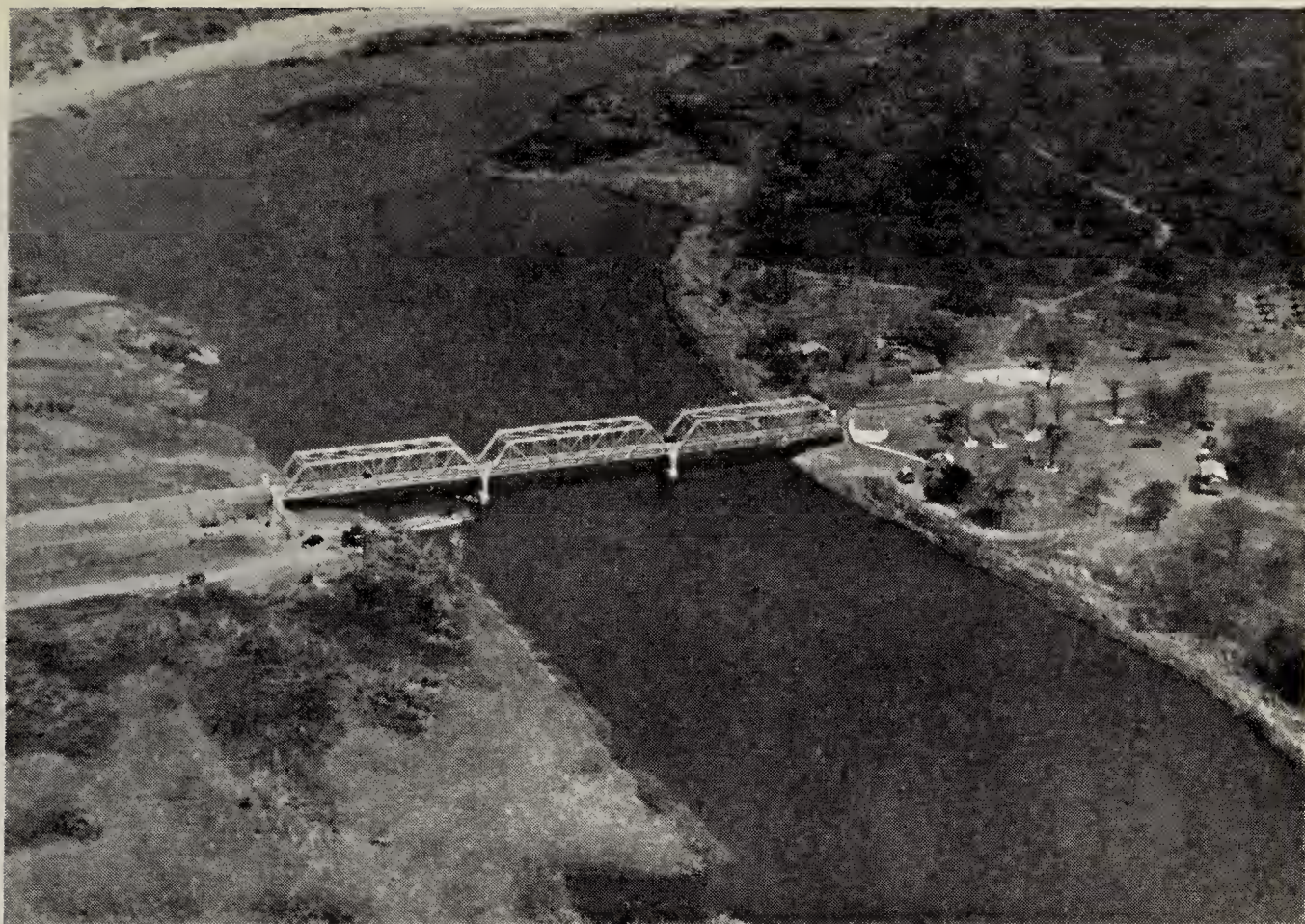
SILICOSIS BUREAU : NKANA



SIR ELLIS ROBINS, SPEAKING AT THE OPENING OF
LUSAKA'S NEW FLOUR MILL



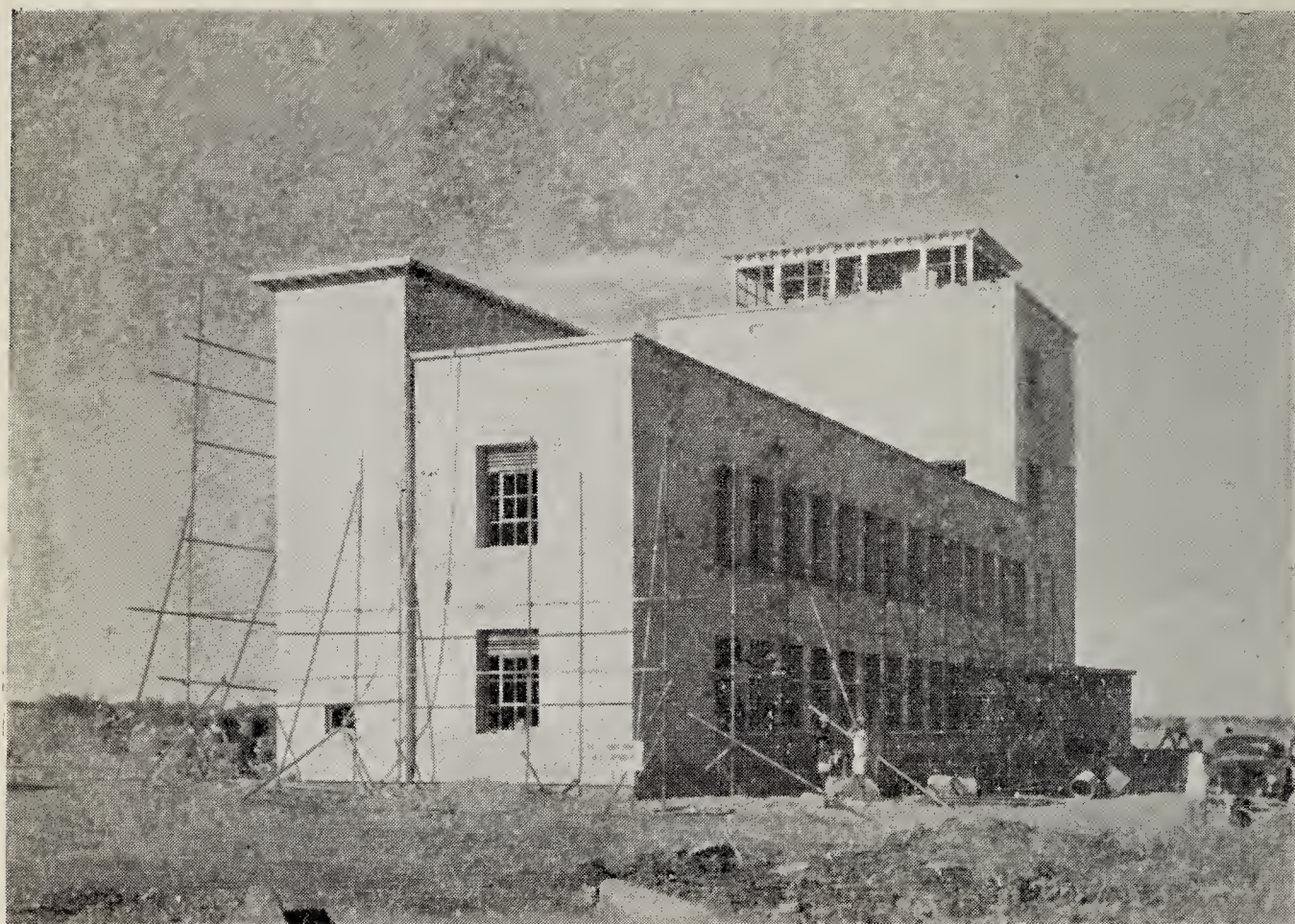
MR. A. CREECH JONES WITH ELECTED MEMBERS OF
THE LEGISLATIVE COUNCIL



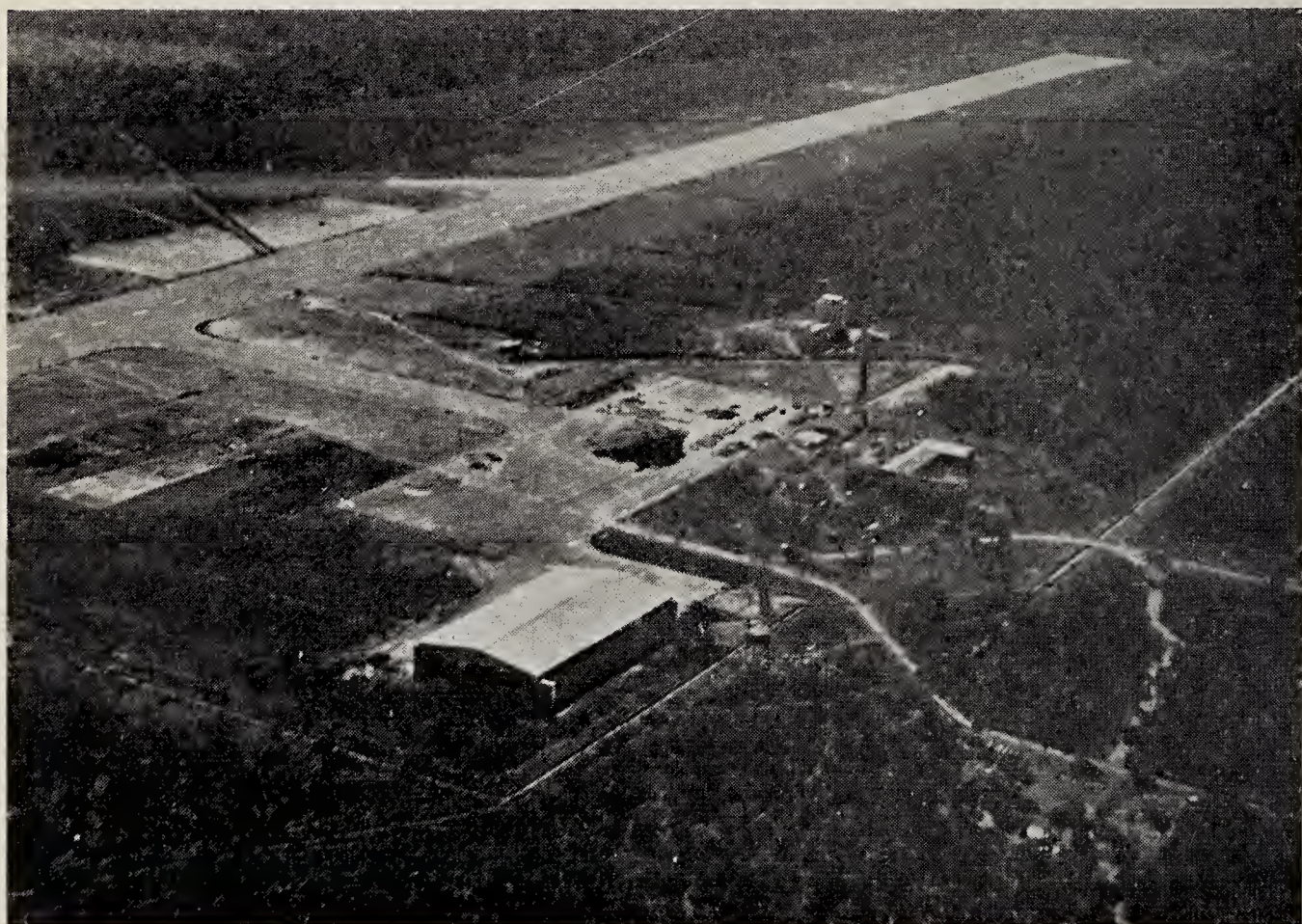
AN AERIAL VIEW OF THE NEW KAFUE ROAD BRIDGE,
OPENED IN SEPTEMBER



MR. A. CREECH-JONES, SECRETARY OF STATE FOR THE COLONIES, TALKING TO
PARAMOUNT CHIEF NSEFU OF THE AKUNDA, AT FORT JAMESON, DURING HIS
TOUR OF NORTHERN RHODESIA



TERMINAL BUILDINGS AT THE NEW LIVINGSTONE AIRPORT
UNDER CONSTRUCTION



AERIAL VIEW OF THE NEW LIVINGSTONE AIRPORT



MALOZI WORKERS LOADING RHODESIAN TEAK INTO A RAILWAY TRUCK



BUSH CLEARING FOR THE PILOT GROUND-NUT SCHEME AT MUMBWA



VIEW OF THE ROAN ANTELOPE COPPER MINE, LUANSHYA, FROM
A C.A.A. VIKING AIRCRAFT



SHAFT HEAD AND SURFACE PLANT AT NKANA COPPER MINE



PRIMITIVE BUSHMEN PEOPLE WHO LIVE ON THE EXTREME SOUTHERN
BOUNDARY OF THE TERRITORY



A VIEW OF THE LUANGWA RIVER FROM NEAR THE
GREAT EAST ROAD BRIDGE



A HAPPY FAMILY OF LISTENERS TO THE LUSAKA BROADCASTING STATION

During the past three years nutrition surveys have been made mainly in two rural areas. The results of these surveys have demonstrated the inter-relationship between faulty nutrition, disease—particularly parasitic diseases—faulty agricultural methods and general ignorance.

It is encouraging to note the response of the local Africans to the sleeping sickness campaign which is being conducted in the Feira district ; after their initial suspicion they are now showing signs of being co-operative. The results of the campaign against venereal diseases in the Namwala district are also encouraging and, it is hoped, sufficiently so to be appreciated by the local Africans.

Public health work was continued as in 1948 and it is intended to inaugurate the training of African staff for preventive services in the near future. Maternity and child welfare services are also proving more popular, and the number of African women who choose to have their confinements in hospitals or clinics has increased steadily.

In 1943 silicosis was found to be prevalent in Northern Rhodesia copper mines, and since that time increasing attention has been paid to the medical examination of new entrants to the industry.

The difficulties regarding staff, housing, office accommodation and the supply of apparatus which were mentioned in the 1947 Report persisted through 1948 but were much alleviated in 1949 and seem likely to disappear almost completely early in 1950. Nevertheless it seems improbable that within 1950 the Bureau's work can be expanded up to the full requirements of the law ; a very great increase of all activities is, however, quite certain.

The following figures for 1949 indicate the work of the Silicosis Medical Bureau for that year and the findings in the course of that work. In reading the figures which follow it should be remembered that very many European miners and some Africans have been exposed to the risk of silicosis elsewhere than in Northern Rhodesia.

SUMMARY OF WORK AND FINDINGS, 1949.

Total of persons examined (Europeans, 2,988 ; Africans, 2,102.)	5,090
Total number of examinations (Europeans, 3,044 ; Africans, 2,204.)	5,248
Total examined or re-examined for first engagement (Europeans, 1,026 ; Africans, 340.)	1,366
Total accepted (Europeans, 802 ; Africans, 315.)	1,117
Total rejected (Europeans, 224 ; Africans, 25.)	249

Total first certifications of silicosis alone	19
(Europeans, 9 ; Africans, 10.)	
Total first certifications of tuberculosis alone	13
(Europeans, Nil ; Africans, 13.)	
Total first certifications of silicosis with tuber- culosis	2
(Europeans, Nil ; Africans, 2.)	

First certifications of persons whose only known exposure to the risk of silicosis has been in Northern Rhodesia mines :

Silicosis alone	11
(Europeans, 1 ; Africans, 10.)	
Silicosis with tuberculosis	2
(Europeans, Nil ; Africans, 2.)	
Tuberculosis alone	10
(Europeans, Nil ; Africans, 10.)	

SOCIAL WELFARE

The provision of African Welfare Centres, of recreational facilities and of useful occupations for leisure hours increased during the year. Some new welfare centres were opened in the rural areas, and most administrative districts now have at least one such centre. Football and athletics are becoming increasingly popular amongst Africans, who at some centres have also taken up boxing, golf and tennis. European-type indoor games spread rapidly at these centres.

In the industrial areas, Africans are urgently demanding libraries, concerts, cinemas, lecture and debating societies, classes in arts and crafts, organisation of choirs and bands and all those more pleasant occupations of the mind to which people in the transitional stage from a primitive to a modern civilisation take so readily. These demands are being rapidly met, although still not rapidly enough, and the bigger industrial firms are now confirmed believers in this kind of welfare. The progress made during the year cannot be set out in figures but, to the experienced resident travelling round the industrial areas, is most apparent.

There is no system of relief for the destitute and disabled such as is known in more advanced countries. The African social system is such that the duty of the family to look after its destitute or disabled members cannot lightly be ignored. In needy cases either amongst Africans or Europeans *ad hoc* compassionate grants are made. For Europeans an Old People's Home exists at Ndola, conducted by the Salvation Army.

A probation officer was appointed during the year. Juvenile delinquency has not yet assumed serious proportions in this Territory. Juvenile offenders are dealt with either by corporal punishment, imprisonment, fine, or detention in a reformatory in South Africa. They may also be released on condition that they attend a Salvation Army School for the period of their sentence. A survey of the welfare problems of the Territory will be conducted early in 1950.

Chapter 8 : Legislation

During 1949, forty-six Ordinances were enacted.

The Trade Unions and Trade Disputes Ordinance, 1949, provided for voluntary registration of trade unions, gave protection to certain acts done in pursuance of trade disputes where conciliation has been resorted to, and provided safeguards to the use of funds of a trade union for political purposes. The Ordinance repealed the application to the Territory of the Trade Union Act, 1913, the Trade Union (Amalgamation) Act, 1917, and the Trade Disputes and Trade Union Act, 1927.

The Industrial Conciliation Ordinance, 1949, set up machinery for the settlement of trade disputes. That machinery included the establishment of conciliation boards, the granting of powers to the Governor, in certain circumstances, to initiate negotiations, to appoint conciliators, to order inquiries, and to refer disputes to arbitration.

The Rhodesia Railways Ordinance, 1949, was enacted to empower the Government of Northern Rhodesia jointly to own and operate with the Government of Southern Rhodesia and Bechuanaland, the railway undertaking acquired by Southern Rhodesia from Rhodesia Railways Limited. The Ordinance was complementary to the Rhodesia Railways Act, 1949, of Southern Rhodesia. A Higher Authority and a Board were set up by the Ordinance. The general management of the Railways is made the responsibility of the Board, and the Board carries out the policy laid down for it by the Higher Authority. The Ordinance also dealt with finance, rates and conditions of employment.

The Mental Disorders Ordinance, 1949, repeals and replaces the Lunacy Ordinance. The purpose of the new Ordinance is to bring the law relating to the care and treatment of mentally disordered and defective persons into line with modern medical practice.

The extensive amendments to the existing law contained in the European Officers' Pensions (Amendment) Ordinance, 1949, were necessitated by the revision of conditions of service contained in the Fitzgerald report.

The Fencing Ordinance, 1949, is a measure which permits the enforcement of compulsory fencing where the majority of farmers in an area so desire. The Ordinance is part of a comprehensive system of agricultural legislation which is being introduced. This system includes the Water Ordinance, 1948, the Control of Bush Fires and Trespass Ordinance, 1948, and the Natural Resources Bill which has been published and awaits enactment.

Chapter 9 : Justice, Police and Prisons

The courts administering justice are the High Court, the Subordinate Courts, and the Native Courts. The High Court consists of a Chief Justice and a Puisne Judge, and, within the limitations of the High Court Ordinance, has the jurisdiction and powers of the High Court of Justice in England. The High Court Buildings, including the High Court Registry, are at Livingstone, which is still the judicial headquarters of the Territory. The Puisne Judge is stationed at Ndola, where there is also a District Registry, to facilitate the administration of judicial work on the Copperbelt. In addition to Livingstone and Ndola, High Court Sessions are held periodically at Lusaka, Kasama, Fort Jameson and Mongu, and occasionally at various district headquarters on special circuit. Under the Mental Disorders Ordinance enacted in 1949, but not yet in force, there has been vested in the High Court jurisdiction to administer and control the estates and property of patients under that ordinance ; and the Registrar of the High Court is to exercise the powers of the Master in Lunacy or of the Court of Protection in England. The Registrar of the High Court is also the Registrar of Companies, Registrar of Patents and Trade Marks, Registrar-General of Births, Deaths and Marriages, and Sheriff of the Territory.

Subordinate to the High Court are the Magistrates' Courts created by the Subordinate Courts Ordinance. These are of four classes : Class I Courts being those of the Provincial Commissioners and Resident Magistrates, Class II Courts those of the District Commissioners, Class III Courts those of District Officers not in charge of a district, and Class IV those of such cadets in the Provincial Administration as are given judicial powers. At present there are Resident Magistrates at Ndola (two), Livingstone, Lusaka, Kitwe and Fort Jameson. All these Subordinate Courts exercise criminal jurisdiction ; Class I and II Courts can try all criminal offences, though they require the High Court's permission to try treason or murder ; Class III and IV Courts have restricted jurisdiction. All criminal cases tried by Subordinate Courts are liable to review by the High Court ; and there is a limit, varying according to the class of the court, to the sentence which can be imposed without the confirmation of the High Court being required. Subordinate Courts, except Class IV Courts, have civil jurisdiction, limited according to the amount involved. Appeals,

both civil and criminal, lie from the Subordinate Courts Class I and II to the High Court, and from the lower Subordinate Courts to the Provincial Commissioner's Courts.

The Native Courts are set up under the Native Courts Ordinance (for all the Territory except Barotseland) and the Barotse Native Courts Ordinance (for Barotseland). The Courts are constituted in accordance with the native law and custom of the area in which the particular Court is to have jurisdiction, and recognised under the Ordinances by warrant of the Governor, or of a Provincial Commissioner with the Governor's consent. The powers and jurisdiction of the Court are normally set out in its warrant. Native Courts of Appeal may also be recognised. Except in Barotseland, in areas where there is a Native Court of Appeal, appeals from the Native Courts of first instance lie to that Court, and from that to the local District Commissioner's Court. Where there is no Native Court of Appeal they lie to the local District Officer's Court, if any, otherwise to the District Commissioner's Court. There are further rights of appeal, from the District Officer's Court to the Provincial Commissioner's Court and from the District Commissioner's Court or Provincial Commissioner's Court to the High Court. In Barotseland, appeals lie to one or more Native Courts of Appeal, and thence to the Provincial Commissioner's Court in criminal cases and to the High Court in civil cases; if there is no Native Court of Appeal they lie direct to those Courts.

Southern Rhodesia, Northern Rhodesia and Nyasaland have established a joint Court of Appeal, known as the Rhodesia and Nyasaland Court of Appeal. Appeals, both civil and criminal, lie from the High Court of the Territory to this Court of Appeal, though in many cases leave of the Court is required for the appeal. The Rhodesia and Nyasaland Court of Appeal meets six times a year, in Salisbury, Bulawayo, Livingstone or Blantyre. In the case of civil appeals from Northern Rhodesia to the Rhodesia and Nyasaland Court of Appeal a further appeal lies to the Privy Council, either of right or with leave of the Court of Appeal. There is no corresponding provision for criminal appeals to the Privy Council, but a petition may always be presented to the King in Council for special leave to appeal.

The law administered in the High Court and Subordinate Courts is basically English law, being the common law, statute law and doctrines of equity in force in England on the 17th August, 1911 (where not at variance with subsequent enactments), together with such later English statutes as have been applied to the Territory, certain Orders in Council and the Northern Rhodesia Proclamations and Ordinances. Practice and procedure are governed by the Criminal Procedure Code in criminal cases, and by the High Court and Subordinate Court

Rules in civil cases ; but subject to these the High Court and Subordinate Courts observe the practice and procedure for the time being in force in, respectively, the English High Court of Justice, and the English County Courts or Courts of Summary Jurisdiction. In cases in the High Court and Subordinate Courts where natives are involved, and in all Native Courts, native customary law is followed where it is not repugnant to justice or equity and not incompatible with local enactments.

POLICE

The approved establishment of the Force at the end of 1949 was 176 European police officers and 1,438 African policemen. The establishment also included twenty-one European and thirty-seven African civilian employees.

The European police establishment includes twenty-eight superior officers, the balance consisting of inspectors and assistant inspectors. African constables can rise to the rank of African inspector. During recent years sustained efforts have been made to improve the standard of literacy of the African police. By the end of 1949 almost 60 per cent. of the African police held certificates for the Government Standard IV examination in English, many having passed higher examinations.

For police administration purposes, the Territory is divided into four police divisions. The Southern Division, with headquarters at Livingstone, includes the Southern and Barotse Provinces ; the Central Division, with headquarters at Broken Hill, includes the Central and Eastern Provinces ; the Western Division, with headquarters at Kitwe, includes the Western Province, and the Northern Division, with headquarters at Kasama, includes the Northern Province.

There are twenty-six police stations and sub-stations in the Territory. New stations are in the process of being established at Nakonde in the Northern Province and Lundazi in the Eastern Province. Funds have been voted for the establishment of new stations in the mine compounds of Nkana and Luanshya as well as at Chirundu in the Southern Province.

Police stations are established in all districts through which the railway line passes. In other areas there are police detachments under European officers at Mongu, Fort Jameson, Mumbwa, Solwezi, Fort Rosebery, Kasama, Abercorn and Isoka. A development plan prepared by the Commissioner of Police provides for the establishment of the police in all the rural districts by the end of 1956.

The headquarters of the Commissioner of Police is at Lusaka.

Criminal Investigation Department headquarters is at Livingstone, although it is hoped to move this unit to Lusaka in 1950.

The Police Training Depot is also situated at Livingstone. Efforts have been directed for many years to have this important unit moved to Lusaka. At the end of 1949 a site near Lusaka was approved for this purpose. The Quartermaster's stores, which are likewise situated in Livingstone, will be moved to Lusaka when a new training depot is built.

The Chief Immigration Officer, who is also the Chief Passport Officer, is stationed at Livingstone. He is a Superintendent of Police. The enforcement of immigration laws is undertaken by members of the Force and for this purpose all European members of the Northern Rhodesia Police are appointed Immigration Officers.

There were 10,655 Penal Code offences and 19,202 statutory offences dealt with by the Force during the year.

With increasing industrialisation of the Territory, and consequent growth of population in urban areas, there has been an increase in crime in recent years, as the following comparative tables of police cases will show :

	1945	1948	1949
Penal Code Offences	5,378	7,969	10,655
Statutory Offences	10,408	20,070	19,202
Total Cases	15,786	28,039	29,857

During the year 23,348 persons were convicted in cases brought by the police. This figure represents an increase of 2,292 over that for 1948.

PRISONS SERVICE

The Prisons Service is under the control of the Commissioner of Prisons with headquarters at Livingstone. The authorised establishment for 1949 was twenty-three officers, which includes one technical instructor, one building foreman and two clerks, and 524 African warders, clerks and artisans.

There are six central prisons, and thirty-one local district prisons. The central prisons are staffed by prison warders, and all but two are under the control of European officers of the Prisons Service. These two are controlled by officers of the Northern Rhodesia Police as *ex-officio* prison superintendents. Of the thirty-one local prisons five are staffed by prison warders, and the prison superintendents are officers of the Northern Rhodesia Police. The sixth is under the control of a European prison officer. Five local prisons are situated in the Copperbelt area.

Twenty-six local prisons are staffed by District Messengers of the Provincial Administration, and the District Commissioner is prison superintendent in each case. These District Messengers are paid, rationed and clothed by the Prisons Service. The average number of messengers employed at each district prison is three, which does not warrant these duties being taken over by the regular prison staff.

All African prisoners with sentences in excess of six months are transferred to central prisons to serve their sentences. European prisoners with long sentences are usually transferred to Salisbury Central Prison in Southern Rhodesia, by arrangement with the Southern Rhodesia Government.

All long-term prisoners are taught trades in the industrial sections of central prisons. In the carpentry sections, African artisan instructors supervise the training of prisoners in this type of work. A European technical instructor is in charge of the carpentry section of industries and visits all central prisons to advise on the best methods of training and instruction. Tailoring is extensively carried on in all central prisons, and prisoners are under the guidance of experienced African tailor instructors. They receive a full training in the actual cutting out of a garment to the final sewing up by machine.

The building trade is also taught in the prisons, and this section is under the supervision of a European building foreman, who is assisted in the training of prisoners by experienced African artisan bricklayers.

African artisan shoemakers supervise the training of prisoners in the art of shoe-repairing in three of the central prisons, and when a prisoner has been fully trained he is sent to a prison where his services would be most useful in the training of other prisoners.

Sisal mats are made in some establishments, and basket work is being successfully performed at Lusaka Central Prison.

The progressive stage system is in operation at four of the six central prisons and has proved highly successful. The gratuity of 2s. per month earned by prisoners who enjoy the privileges of this system may be placed to their credit against their day of discharge. They are permitted to spend one-half on some minor luxury.

Camps for first offenders are situated at Livingstone, Lusaka and Fort Jameson Central Prisons and at Ndola Local Prison. Bwana Mkubwa Camp was opened as a penal settlement during the year and this will be developed on the most modern and progressive lines possible.

Chapter 10 : Public Utilities and Public Works

In the main towns of the Territory, the supply of electricity and water is either in the hands of the municipality (as at Ndola and Livingstone), the mining companies (as on the Copperbelt towns and at Broken Hill), or the Government (as at Lusaka). Smaller townships rely on boreholes for water supply and have individually owned lighting plants at hotels, hospitals, railway stations, etc.

The supply of electricity and water, except in the mining towns, has begun to fall short of requirements owing to increased population and new industrial developments since the war, and to the difficulty of obtaining new plant for the water and electricity undertakings. In the mining towns, green lawns and attractive flower gardens all the year round are possible because of unlimited water pumped out of the mines, and lighting is an almost negligible drain upon power supplies which have to provide enormous industrial current. In the mine townships electricity and water are provided free ; in the adjacent Government townships which the mines supply, standard charges are made.

On the Copperbelt electricity is generated from steam turbines. Broken Hill is supplied by hydro-electric power stations from the Mulungushi Falls and the Lunsemfwa River. Livingstone has harnessed water from the Zambezi led by canal to one of the great Zambezi gorges. Steam and diesel engines produce Lusaka's electricity.

The rapid growth of Lusaka had begun by 1949 to cause serious overloading on the power station plant, and was also overtaxing the available pumping plant supplying the town with water from the boreholes. Extra generating and pumping plant was installed in 1947, which enabled the demand for power and water to be met, and plans have been made for further expansion in 1950 and 1951.

AERODROMES

Of the airfields in the Territory, both major and minor, eighteen were maintained by the Public Works Department. All were maintained in satisfactory condition, though sometimes maintenance was rendered difficult through lack of petrol for the plant.

The most important new construction work was the new airport at Livingstone. Work continued by contract throughout the year, and will be completed in 1950. The main runway has a bituminous surface,

measuring 7,500 feet by 200 feet, planned to take aircraft of 150,000 lb. all-up weight. The secondary runway will have a stabilised surface, measuring 4,800 feet by 80 feet, capable of taking aircraft of 40,000 lb. all-up weight.

Improvements to aerodromes were made at Mongu, Kalabo, Balovale, Sesheke, Luwingu and Fort Rosebery. General improvements were made to several other aerodromes.

Work on aerodrome buildings was carried out at Lusaka, Ndola, Kasama and Mankoya.

BUILDINGS

During 1949 the construction of housing, office accommodation and schools provided the main feature in the building programme. It was once more necessary to depart from traditional construction methods, and forty-eight "Riley" prefabricated housing units were obtained from the United Kingdom. In addition, large numbers of permanent houses were erected.

Two new office blocks were completed during the year, each providing fifteen rooms; a further two blocks were under construction at the end of the year.

Five infants' schools are being built and a portion of each will be ready for occupation in January, 1950. Extensions to the boys' school at Lusaka should be ready for occupation in the same month.

There was a shortage of skilled artisans during the year, principally in the plasterer and plumber groups, and the completion of certain projects was unavoidably delayed due to this shortage; unskilled labour was also short.

It is expected that the Broken Hill hospital, which is to cost approximately £400,000, will be completed towards the end of 1950. The contract for this building is held by Messrs. John Howard and Company under their management fee contract.

The Public Works Department was fully occupied throughout the year on new construction and maintenance. The more important construction items were;

- (1) Civil Service Hostel (Stage II) at Lusaka.
- (2) House for the Speaker at Lusaka.
- (3) Police Headquarters at Lusaka.
- (4) Mechanical engineers' office block at Lusaka.
- (5) Government Guest House at Ndola.
- (6) Stores Department building at Ndola.
- (7) Mechanical workshop at Ndola.
- (8) Hospital extensions and X-ray buildings at Fort Jameson.

- (9) Site preparation and erection of "Riley" houses at Lusaka, Livingstone and Ndola.
- (10) Aerodrome buildings at Ndola and Kasama.
- (11) Temporary offices for the Public Works Department at Lusaka.
- (12) Alteration to Stores and Transport buildings at Lusaka.
- (13) Customs office extensions at Lusaka.

BUILDING CONTRACTS LET AND INCOMPLETE: 1949

Works	Locality	Amount £
Police Camp . . .	Chingola	16,440
62 A.K. Houses . . .	Lusaka	189,523
4 A.K. Houses . . .	Choma	10,998
Altim Houses for Mechanics .	Lusaka	20,455
Infants' School . . .	Broken Hill	29,447
Infants' School . . .	Kitwe	38,729
Infants' School . . .	Luanshya	38,186
Infants' School . . .	Chingola	30,132
Infants' School . . .	Mufulira	39,637
Pressure Tanks . . .	Luanshya	720
Drum Boilers . . .	Lusaka	997
Altim Houses, Livingstone Air- port . . .	Livingstone	13,200
Temporary Classrooms, Boys' School . . .	Lusaka	5,846
Malaria Wards, European Hos- pital . . .	Lusaka	10,266
School . . .	Lusaka	5,300
Extensions Broadcast Station .	Lusaka	10,035
Rebuilding S.P. Cottage .	Lusaka	1,200
Nurses' Hostel . . .	Lusaka	11,653
Altim House at Military Camp .	Lusaka	9,600
A.K.3 House . . .	Mufulira	3,505
Additional Secretariat Offices .	Lusaka	17,993
Hostel for Apprentice Motor Mechanics . . .	Lusaka	3,214

BUILDINGS COMPLETED IN 1949 BY CONTRACT

Works	Locality	Amount £
Customs Office . . .	Ndola	7,838
Post Office . . .	Chingola	7,973
School Hostel . . .	Lusaka	70,000
38 A.K. Houses . . .	Lusaka	114,678
6 A.K. Houses . . .	Livingstone	19,670
5 A.K. Houses . . .	Chingola	16,474
23 A.K. Houses . . .	Ndola	74,068
20 A.K. Houses . . .	Kitwe	68,979
4 Zambesi Houses . . .	Lusaka	4,162
Alterations to Airport Building	Lusaka	10,237
Extensions to Printing Works .	Lusaka	22,509
Extensions to Telephone Ex- change . . .	Lusaka	5,674
3 Altim Houses for Contractors' Staff . . .	Lusaka	6,000
Offices for D.C.S. . . .	Lusaka	1,697
Secretariat Offices . . .	Lusaka	17,557

PUBLIC UTILITIES AND PUBLIC WORKS
WATER DEVELOPMENT AND IRRIGATION
DEPARTMENT

53

With the arrival of engineers from the United Kingdom the department was able to make headway, and the year can be regarded as successful. New areas were covered and for the first time provincial engineers were posted to all provinces with the exception of the Central and Western Provinces. The activities in the Northern and Barotse Provinces were limited to investigation work, and satisfactory progress was made in this direction. In other provinces staff had already been posted for some years and they were able to carry out their intended programmes. An engineer was given charge of the irrigation investigations, and the year saw also the opening of a hydrological section.

Further drilling rigs were ordered, but had not arrived by the end of the year. This was one section of the department that suffered badly through lack of staff.

The following is a summary of drilling activities during the year :

Number of boreholes completed :

For private owners	127
For Government	51
Total	<u>178</u>

Total footage drilled 20,703
(Average cost per foot drilled £1 7s. 0d.)

Total supply developed in gallons per twenty-four hours 4,798,102

Highest output from any one bore 10,000 g.p.h.

Percentage of successful bores 66.8 per cent.

Total revenue £27,843 12s. 1d.

Twelve piped water supply schemes were undertaken during the year, and of these five were completed. The other schemes were held up through the slow delivery of material ordered and the lack of staff. A further contributory cause was the urgent need for installing schemes which were not scheduled in the department programmes.

As in previous years, programmes of well-sinking and dam construction in the African rural areas were lengthy. In all areas 295 wells were completed, five weirs and sixty-four dams, forty-six of the latter being in the Eastern Province of the Territory.

Assistance was given to a considerable number of farmers, either by technical advice on irrigation schemes or well sinking.

The heavy earth-moving plant machinery which had been on order for some time began to arrive in the latter months of the year, and operators were given a period of training in its use.

Only one geologist was on duty for the greater part of the year. Apart from the investigation of dam sites, for the department and a number of farmers, he was mainly occupied in the location of borehole sites, on geological and geophysical data. In addition, use was made of the services of a Johannesburg firm which specialises in geophysical prospecting for water and minerals.

The Water Board was inaugurated following the enactment of the Water Ordinance on 1st October, 1949. In three months' working eighty-one applications for water apportionment had been received, and investigations were carried out by officers of the department. The number of applications and inquiries received from the farming community shows that considerable interest is taken in the problems of water conservation.

AFRICAN HOUSING

An African Housing Department was established in 1947 under the Commissioner for Local Government, and in the Territory's Development Plan the sum of £1,500,000 is provided to build houses for Africans in towns and at district stations. All of this sum is being spent on permanent brick cottage-type houses, most of which are being built by contract at a cost of approximately £160 each, including estate, service and overhead charges. Approximately 6,500 of these houses will be built in towns administered by local authorities and let to the public. The balance of approximately 2,500 houses is for Government's own employees in towns and at district stations. The 6,500 houses being built by the African Housing Department for letting will be handed over against loans to local authorities carrying annual interest of $3\frac{1}{2}$ per cent. and repayable over forty years.

It is the aim to encourage the emergence of a stabilised African community in towns, living a family life in neighbourhood-units with adequate public services. All local authorities and the Government have, however, not been able to do more than set this target before themselves and make a start with its realisation. The increase in population of all races in the towns has outpaced the capacity of the community, the Government and the local authorities to build new houses of a satisfactory type. The shortage of housing for Africans in most towns has been distressing, and recourse has necessarily been had to temporary mud and thatch houses of the traditional type but to a higher standard. Interest-free loans from the Government were given for the building

of these temporary houses. Some 700 permanent houses of the programme were substantially finished in 1949 and a few hundred temporary houses were built by local authorities in the course of the year. Shortage of imported materials was no longer a dominating obstacle to progress. Labour shortage, skilled and unskilled, became of equal importance.

An Urban African Housing Ordinance passed in 1948 sets up housing authorities and provides for the fixing of rents, the establishment of committees of householders and the empowering of local authorities to compel employers of substantial numbers of Africans to build houses for them and their families.

BUILDING AUTHORITY

The increased demand for buildings of all types which commenced in 1948 continued unabated into 1949 ; this was coupled with a growing shortage of both the skilled type of African labour and the ordinary labourer. It was considered necessary, therefore, to maintain the control, and the Construction of Buildings (Temporary Control) Ordinance was re-enacted for a further period of twelve months (i.e. 1949) at the December, 1948, Session of Legislative Council. The Building Authority continued to operate in Lusaka, and the Advisory Committees which were established in all the main centres of the Territory assisted the Authority to assess degrees of essentiality and priority on applications for buildings other than residences.

Dwelling-houses continued to receive first priority, and as a general rule the restriction of the plinth area within 2,000 square feet remained in force, certain exceptions being made when adequate reasons for the excess required could be given. Industrial buildings, offices and buildings for storage purposes also received high priority.

There was no diminution in the volume of applications handled during 1949, the peak months being July and August. The following table sets out the permits issued up to the 31st December, 1949 :

BUILDING PERMITS GRANTED DURING JANUARY—DECEMBER, 1949. (Including Mine Townships.)

Month	Total Value of Applica- tions- Approved	Residenees	No. of Permits Issued	Per cent. of Total Value	Other Buildings	No. of Permits Issued	Per cent. of Total Value	African Housing	No. of Permits Issued	Per cent. of Total Value
	£	£			£			£		
1949										
January	132,033	96,348	46	73	35,685	26	27	—	—	—
February	182,123	88,518	32	49	93,605	27	51	—	—	—
March	280,222	141,952	34	51	138,270	24	49	—	—	—
April	154,655	117,376	62	76	37,279	33	24	—	—	—
May	209,363	151,981	77	73	57,382	27	27	—	—	—
June	278,051	214,195	102	77	63,856	34	23	—	—	—
July	460,398	430,227	205	93	30,171	18	7	—	—	—
August	395,244	226,738	125	57	73,220	26	19	95,286	4	24
September	231,394	154,070	77	67	65,474	50	28	11,850	4	5
October	232,363	124,359	72	53	108,004	42	47	—	—	—
November	232,802	98,559	42	42	134,243	46	58	—	—	—
December	109,295	73,124	30	67	29,043	20	27	7,128	24	6
	2,897,943	1,917,447	904	778	866,232	373	387	114,264	32	35

The proportionate distribution of buildings was Residential Buildings 66 per cent. ; Commercial and Industrial Buildings 30 per cent. ; African Housing 4 per cent. These percentages closely follow the 1948 trend.

A comparison of the volume of building in 1948 and 1949 is shown by the following table :

	Total Value	Residences	Commercial and Industrial	African Housing
1948	£2,672,926	£1,964,435	£708,491	—
1949	£2,897,943	£1,917,447	£866,232	£114,264

Building costs continued to rise, and the following table which has been compiled by selecting three typical residences for each quarter of the year provides a valuable comparison :

Example			Estimated Cost £	Plinth Area sq. ft.	Cost per sq. ft. s. d.	
First Quarter	A.	Low	2,400	1,548	31	0
	B.	Medium	2,500	1,526	32	8
	C.	High	3,400	1,987	34	3
Second Quarter	A.	Low	2,900	1,989	29	2
	B.	Medium	3,200	1,673	38	3
	C.	High	4,171	2,021	41	2
Third Quarter	A.	Low	2,572	1,638	31	5
	B.	Medium	3,300	1,700	38	9
	C.	High	2,700	1,258	42	11
Fourth Quarter	A.	Low	3,600	2,364	30	6
	B.	Medium	2,932	1,633	35	10
	C.	High	3,300	1,589	41	6

The control has prevented the erection of unnecessary or non-essential buildings and so enabled labour and materials to be directed to the types of buildings most urgently required in the Territory. There is every indication that the number of non-essential buildings waiting to be erected might well have completely upset the already very delicate balance between demand and the availability of labour and certain classes of materials.

Chapter 11 : Communications

ROADS

The pattern of the road system of the Territory remained unchanged from that described in the annual report of 1947, and work during 1949 was directed to improving the alignment and standard of construction of certain roads, and maintaining the whole system in good condition.

The most important improvement in road communications completed in 1949 was the Kafue River bridge which was opened in September. This bridge, the superstructure of which used to span the River Thames in London as an emergency bridge during the Second World War, is a gift to the Territory by the Beit Railway Trust. It replaces a pontoon ferry and strengthens the north-south road artery of the Territory. This artery was severed in the phenomenal floods of 1948, and the completion of the bridge is an assurance that such a situation will not occur again.

An examination of road construction progress shows that forty-three miles of Class I (bituminous surface) road were completed, thus increasing the mileage of bituminous surfaced main roads (excluding portions within townships) to about 153 miles. Only eleven miles of Class II (gravel) roads were completed during the year. Improvement to Class III (improved earth) of eighty-four miles of road was completed.

The accent during the year was on survey and other preparatory work, culminating in the letting of contracts for £700,000 worth of Class I and Class II road construction. In this large undertaking the Public Works Department was assisted by a consulting engineer who is also assisting with the supervision of the contracts.

During the latter half of the year the staff position improved, as did the supply of mechanical plant, but shortage of petrol had a most adverse effect upon progress.

The estimated expenditure incurred in road construction and maintenance in 1949 was :

Road Construction	£194,255
Bridge and Culvert Construction	£9,500
Capital Grants to Road Boards	8,000
Road Maintenance :	
Roads maintained by Public Works Department	£96,000
Roads maintained by Provincial Administration	£58,000
Roads maintained by Road Boards	£33,700
Rural Roads	£2,675

CIVIL AVIATION

In 1949 the work of the Department of Civil Aviation was one of consolidation. The basis of the consolidation was governed to a great extent by the recommendations arising from the International Civil Aviation Organisation's African-Indian Ocean Regional Conference held in London during March and April, 1949.

The primary feature of this conference was the standardisation of procedure both from the operational and technical aspects, and the increased navigational facilities, all of which have had to be planned and implemented in the Territory. This work was carried out by the Department of Civil Aviation, which is responsible for the implementation of air policy, the direction and control of civil aviation within the Territory and the provision of technical advice.

A manual of Air Law of Northern Rhodesia was revised and re-issued in March, 1949, and in December a new issue was made of the *Air Pilot of Northern Rhodesia*. An aerodrome manual for Northern Rhodesia was also published in co-operation with the Director of Public Works. All these books have had a wide circulation.

Considerable progress was made in 1949 in the construction of the new Livingstone airport, and by November the main runway was completed. The results of the bearing strength of this runway should be made available in 1950. The intention is to open the airport officially on 12th August, 1950, and to allow certain authorised proving flights to operate into the airport, in daylight only, as from 1st July, 1950. An airport brochure is being prepared for the information of the general public.

Almost all private flying is done under the auspices of the Flying Club of Northern Rhodesia, the headquarters of which is at Mufulira. There are also branches of the Flying Club at Ndola, Luanshya, Kitwe, Nchanga, Lusaka and Livingstone. The Club is affiliated to the Royal Aero Club of London.

The Central African Airways Corporation fleet of aircraft at the end of 1949 comprised five "Vikings" and seven "Doves". The two Bristol Freighters Type 170 and the "Rapide" aircraft remained in service until September and June respectively.

A short account of the work of the Public Works Department on construction and maintenance of airports is given in Chapter 10.

POSTS

A postal agency was opened at Nyimba during 1949, bringing the total number of post offices in the Territory to fifty-eight.

The volume of mails increased by 20 per cent. over the previous year, the total number of postal articles being 22,487,547.

Money Order and Postal Order transactions continued to increase, comparative details of which are given below :

		1948		1949	
		Number	Amount	Number	Amount
			£		£
Money Orders :					
Issued	.	15,010	177,691	16,912	193,239
Paid	.	6,318	68,852	7,148	76,994
Postals Orders :					
Issued	.	261,253	182,907	303,823	224,078
Paid :					
British	.	106,957	73,910	109,017	76,594
Union of					
South Africa		45,785	40,524	50,395	43,781

TELECOMMUNICATIONS

Telephone Exchanges.

A new two-position trunk switchboard, designed and manufactured by members of the Engineering branch of the Posts and Telegraphs Department was installed at Livingstone, and greatly assisted in the more efficient handling of trunk line traffic.

Trunk line facilities were considerably improved by the installation of two three-channel carrier systems between Livingstone-Lusaka and Lusaka-Ndola. Improved service to Mufulira was obtained by the installation of a V.H.F. radio prototype trunk link between Kitwe and Mufulira.

An additional party-line was completed at Mazabuka, linking ten additional farms to the exchange. Additional lines are in the course of construction in the Pemba area.

Wireless Stations.

Transmitters (250 watt) were installed at Livingstone, Kitwe, Luanshya and Mufulira to reduce congestion on existing telegraph circuits. New stations were brought into commission at Petauke and Lundazi, bringing the total number of wireless stations to twenty-three.

Telegraphs.

The provision of an additional channel between Livingstone and Bulawayo and the opening of wireless links between Livingstone and the mining centres reduced the congestion on these circuits.

COMPARATIVE STATEMENTS.

Telegrams.

		1948	1949
Forwarded	. .	226,222	269,070
Received	. .	210,237	255,069
Transmitted	. .	353,237	380,986
Totals	. .	<u>789,696</u>	<u>905,125</u>

Telephone Trunk Calls.

		1948	1949
Internal	. . . .	288,296	335,767
External :			
Outgoing	. . 13,109		14,643
Incoming	. . 9,390		11,010
		<u>22,499</u>	<u>25,653</u>
Totals	. .	<u>310,795</u>	<u>361,420</u>

Chapter 12 : General

LANDS

The number of applications for township plots was approximately the same as in 1948, and leases of plots prepared and registered during the year numbered 251, compared with 287 in 1948. Applications for residential plots again predominated and there was a noticeable increase in the number of applicants who wished to build blocks of flats in the larger towns.

The Southern Rhodesia Town Planning Department continued its work in the Territory, and active planning is well under way at Kitwe, Chingola, Mufulira, Ndola and Livingstone. Visits have been paid to Luanshya and Broken Hill, and preliminary plans for discussion with local authorities are expected early in 1950. It is hoped that, as well as continuing work in all these major towns, time may permit a study of the problems of some of the smaller towns in the coming year. There is a demand for plots at the farming centres of Mazabuka, Choma and Kalomo, and further development may be expected at Fort Rosebery, Kasama and Abercorn. Town planning advice, even if it consists in the first instance only of laying down a road grid and zoning plan, would be invaluable at this stage in the expansion of these towns of growing importance.

The number of applications for agricultural holdings also remained steady at about 350, and 121 new leases were issued as a result of applications approved by the Land Board. The demand for small-holdings in the Copperbelt continues, and more than half of the agricultural leases issued were for holdings of this type, despite the known difficulties of agriculture in that area. Visitors from the Union of South Africa again showed great interest in the remaining Crown land, especially in the Choma-Kalomo area, and the last act of not a few South African tourists before leaving the Territory has been to complete an application form for land in the Lands Department office at Livingstone.

SURVEYS

The recruitment of qualified survey staff continues to be difficult. The trained European staff available can do little more than keep pace with township development, and almost all the agricultural land being alienated at present is unsurveyed. This is a serious state of affairs.

Unless development of the Territory is to be held up, the alienation of unsurveyed land must continue, but it is a matter of grave concern that this practice endangers the security of title and strikes at the root of the registration system.

African surveyors trained at the school in Broken Hill continued to show good progress. Perhaps their most notable contribution has been the cutting of boundaries between neighbouring farms, and between Native Trust Land and Crown land. As an experiment, it is intended to second six or eight of them to the Provincial Administration during 1950, in the hope that they may prove useful in the planning of development centres, the revision of district maps, and similar projects.

The Royal Air Force photographic squadron was not based in Northern Rhodesia during 1949. The only part of the Territory photographed was in the extreme north, where sorties were controlled by a radar station established in Mbeya, in Tanganyika Territory.

INFORMATION DEPARTMENT

Considerable increase in the activities of the Information Department took place during the past year.

The cheap dry battery sets, now popularly known as the "Saucepan Special", arrived in the Territory towards the end of September. It was the end of October by the time the sets had been checked, trimmed and distributed over the country for sale at £6 5s. 0d. complete with battery. Sets were sent to Nyasaland and Southern Rhodesia, and by the end of the year it was known that the average rate of sales had been 425 a month. A number of these had been sold to Europeans.

That the sets have become popular with the African community has been proved by more than 300 letters which the Department had received from them by the end of the year. The letters almost invariably expressed thanks and appreciation, and have proved beyond doubt that African broadcasting is now solidly established.

Almost 600 Press *communiques* were issued compared with 500 in the previous year. These *communiques* were extensively used in the local Press, in South Africa and in some cases in the British Press. A number of feature articles were also produced for papers in the United Kingdom and South Africa.

The publication of the African newspaper *Mutende* weekly instead of fortnightly was held up by delays in delivery of a Cossar machine and of newsprint. Production tests were, however, completed by the end of the year. Circulation rose from 16,000 to just over 18,000.

The Central African Broadcasting Station at Lusaka continued to broadcast to Africans in Southern Rhodesia and Nyasaland as well as in Northern Rhodesia, and also to Europeans at week-ends. The Christmas programme was the broadcasting highlight of the year, and it included an all-Africa hook-up in which Africans from all parts of the continent and from London and Paris spoke to Africans of Northern Rhodesia.

Petrol shortage continued to hamper the activities of the Information Department's mobile cinemas. The Balovale cinema continued to work successfully throughout the year, but after much delay the one at Kasama was brought into operation and appears to be running smoothly.

Nine films were completed—four gazettes, one newsreel, and four documentaries. Six other films were in the process of production and covered the main development projects of the Territory. The film library contained 1,100 films at the end of the year and the number of subscribers was increased from fifty-nine to ninety-eight.

Assignments completed by the Information Department's photographic section totalled 184 for the year. Twenty-five were undertaken in the studio and 159 in the field. During 1949 more than 100 pictures were published in the British Press as pictorial features, cover pictures, illustrated articles and news pictures. Photographs totalling 243 were also published in local, Southern Rhodesian and South African papers and periodicals.

A tourist officer was appointed to the Department in July and the offices of a Tourist Bureau are now situated in Livingstone. A close liaison was effected with travel agencies in different parts of the world, and a number of brochures and leaflets were prepared for publication in 1950.

PUBLICATIONS BUREAU

Towards the end of 1947, the excellent work of the former voluntary and semi-permanent African Literature Committee was taken over by the full-time Publications Bureau under a Colonial Development and Welfare Scheme. The object of the Bureau is to place the production and distribution of sound books in the vernaculars and English on a commercial basis by the end of a period of eight years. Final approval for the Bureau's operations on a joint basis with Nyasaland was received in September, 1948.

The year 1949 was occupied, not only with the continued production of new books and new editions of old books, but with such reorganisation as was necessitated by expanding activities and facilitated by full-time staff.

The Bureau's work covers a number of fields. Its staff has to discover, encourage, and guide potential African authors ; simultaneously it has to build up panels of readers, and language experts, and work out bases and methods of remuneration. The question of what books will find a demand and what will not is as enigmatic and as permanent in Central Africa as it is to publishers in any country, and this forms a constant part of the Bureau's work.

Negotiations with a widening circle of publishers form a large part of the Bureau's routine, and the building up of a satisfactory distribution system is perhaps the most difficult problem of all.

On the production side, a system of " guarantees " for sales of a minimum number of each edition has been worked out, and has had far-reaching results. The system enables publishers to undertake much larger editions of books (with consequent reduction in price per copy) with a minimum risk to themselves.

On the distribution side, marketing has been placed in the hands of the United Society for Christian Literature in Northern Rhodesia under a system whereby the Bureau controls the selling prices of its own books. Altogether the Bureau arranged the publication of 100,000 copies of twenty books in English and various vernaculars. Total sales during the year amounted to 48,000 books, including of course those published in previous years.

DEPARTMENT OF GAME AND TSETSE CONTROL

An area of some 8,650 square miles, covering part of the central Kafue basin, has been set aside for a national park. This area includes the old Kafue Game Reserve, so that the number of reserves is now reduced to eleven with a total area of 9,858 square miles. The controlled area system continued to develop satisfactorily in 1949 and the demand for hunting permits was large.

Game conservation generally continued to make progress, the increasing pressure of hunting in populated areas being offset by preservation in reserves and, to a lesser degree, in controlled areas. A scheme for conducted hunting parties, under official auspices, was worked out for the Luangwa Valley, the profits therefrom to be divided equally between Government and the Native Treasury concerned. Particular attention has been paid to vermin destruction in both European and African food-producing areas.

In the Namwala district, south of the Kafue, a scheme of tsetse control through organised settlement of native villages and cultivation was set in motion. Elsewhere it may be said that the position is satisfactorily held. In November the East African Tsetse and Trypanosomiasis Research and Reclamation Organisation gave the Northern

Rhodesia Government the results of their successful experiment in "discriminative clearing" of bush.

The Eastern Province tsetse control scheme was concluded in 1949 with the exception of a small amount of fencing. This scheme has successfully opened up extensive areas to resettlement by Africans. The Kafue (north) scheme made progress with the erection of fences in the western (Namwala) section; previous measures of bush clearing and game control had recently so improved the position in the eastern (Mumbwa) section that the need for fencing in that section is now under review. The tsetse control scheme at Feira made marked progress on the Luangwa front, where tsetse are reported to have diminished greatly, but the position remains difficult in the Zambezi area. The future of the whole scheme now depends upon administrative decisions to be taken regarding movements of the population.

NATURAL HISTORY

The new revised *Check List of Northern Rhodesia Birds*, compiled by Dr. J. M. Winterbottom and Mr. C. M. N. White, has now been published. A revision of the *Check List of Mammals* (Pitman, 1934) has been undertaken by Mr. D. G. Lancaster, Assistant Game Warden.

Members of the Game and Tsetse Control Department have made extensive collections of birds and other zoological specimens for study purposes, co-operating in this with the National Museum of Southern Rhodesia at Bulawayo.

RHODES-LIVINGSTONE INSTITUTE

In 1949 the Rhodes-Livingstone Institute continued the research projects begun in earlier years and initiated no new work. The research programme included a study of labour migration and four social anthropological studies under Colonial Development and Welfare vote grants. The anthropological studies included investigations of the Nyasaland Yao and three groups in Northern Rhodesia, the Fort Jameson Ngoni, the Plateau Tonga, and the peoples of the Luapula area. A Beit Trust grant continued to finance work on the Shona peoples of Southern Rhodesia. A new officer was appointed under another Beit Trust grant to undertake a social anthropological investigation of the Ndebele of Southern Rhodesia, but did not reach Rhodesia until after the end of 1949.

Two of the officers, Mr. J. A. Barnes and Mr. J. C. Mitchell, completed their contracts with the Institute under a Colonial Development Scheme. Mr. Mitchell will take a new contract with the Institute

for an investigation of urbanisation among the Africans of the Northern Rhodesia Copperbelt. During a portion of 1949, he was on leave. The first two months of his leave period he was engaged on a survey for the Nyasaland Government to provide information on the Yao of the Malemia area. The remainder of his leave has been spent overseas, where he has been preparing a report on the Machinga Yao of Nyasaland. Mr. Barnes, although he did not take a further contract with the Institute, has been at work on final reports on the Fort Jameson Ngoni research. During 1949, Mr. Barnes, Dr. E. Colson, and Mr. Mitchell completed accounts of Ngoni, Tonga and Yao marriage, which the Institute will publish in its series of papers. Mr. Barnes and Mr. Mitchell are now at work on books analysing local and village organisation among Ngoni and Yao. These officers have also completed a number of short articles on different aspects of Ngoni, Tonga and Yao culture. In September, 1949, Mr. I. Cunnison, the anthropologist appointed to the study of the Luapula area, was ready to begin an analysis of the material collected during his first field tour. Due to lack of housing and office accommodation, the Trustees of the Institute decided it would be best to send Mr. Cunnison to the United Kingdom, where he has been resident at Oxford University while writing his preliminary reports on the Luapula area.

The economist appointed at the end of 1948, Miss M. Elliott, has continued her study of the information available on labour migration in Northern Rhodesia and Nyasaland.

The Beit Trust Shona Fellow, Mr. J. F. Holleman, has worked throughout the year to complete the manuscript of his book on Shona marriage and family law.

At the end of the year, the Institute received a new grant from the Colonial Development and Welfare Fund which, together with increased annual donations from various private companies and the Northern Rhodesia Government, will allow it to expand its research programme during the next five years. This grant will become operative in 1950 and will incorporate the grants under which the existing research has been financed.

The publications of the Institute continued to appear regularly during the year. Two journals and three papers were produced as well. The three papers were W. Allan's *Studies in African Land Usage*; M. Gluckman's *Malinowski's Sociological Theories*; and J. F. Holleman's *The Pattern of Hera Kinship*. Reviews of Institute publications continued to be good, and there has been a growing sale of its papers, as well as an increase in the number of subscriptions.

THE RHODES-LIVINGSTONE MUSEUM,
LIVINGSTONE

The Rhodes-Livingstone Museum was founded in 1930 as a collection of objects of African material culture, and was housed in the office of the Secretary for Native Affairs, at that time in Livingstone. In 1934 His Excellency Sir Hubert Young gave the collection its first home in the old Magistrate's Court and conceived the idea of extending the collections to become a memorial to David Livingstone. Later, through private benefactors and purchases, a representative collection of Livingstone's letters and other objects of personal interest were acquired. From its first temporary home the collections were moved into the former United Services Club buildings early in 1937. In the same year the Rhodes-Livingstone Institute was founded by Sir Hubert Young to undertake sociological research in Central Africa, and the Museum was incorporated in that institution and administered as part of the Rhodes-Livingstone Trust.

During the war years the Museum's activities were cut to a minimum owing to absence of staff, but in the course of the first eight years of the Museum's existence as part of the Trust, the collections were very considerably enlarged, cases for display purposes were acquired, and the work of the Museum and Institute developed to such an extent that the Trustees decided in December, 1945, to separate the two institutions. From the 1st January, 1946, therefore, the Museum has been administered separately under its own board of Trustees. At the same time it was recognised that the provision of a new building with adequate display, storeroom, and workroom facilities was a necessity. A building fund was accordingly opened and £25,500 subscribed by the Northern Rhodesia Government and commercial concerns with interests in the Territory. Owing to delays in obtaining building materials work was not started until the middle of 1949, but the contractors expect the building to be completed by August, 1950. The foundation stone was laid on the 28th of January, 1950, by Colonel Sir Ellis Robins, D.S.O., E.D., one of the Museum trustees. It is anticipated that the opening of the new building will take place approximately six months after its completion.

The details of the Museum policy will be found in the memorandum by the Curator, *The Museum as a Public Service*. The Museum is planned to be not only the focus of Museum research, and a valuable localised collection, but also a disseminating centre for educational exhibits to be sent throughout the Territory. A Beit Trust grant has already enabled an educational programme to be started, which will bring aspects of the Museum within reach of European and African schools throughout the Territory. After 1950 this programme is to

be financed by the two Education Departments concerned. Subject specialisation has been adopted both by reason of limitation of staff and of funds. The Museum has, therefore, adopted as its purpose and educational programme the interpretation of the history, development and present status of Man in Northern Rhodesia. It is confidently expected, however, that increase of staff will shortly make it possible for the Museum to enlarge its scope to include taxonomic collections, particularly in the fields of geology, zoology and botany, and more detailed research on ethnology.

The Museum contains an exceptionally fine collection of original letters of David Livingstone, the explorer's sketch book on the Zambezi Expedition of 1860, copies of his maps as well as a fully representative collection of early maps of Africa. A new original map and letter of David Livingstone were purchased during 1949. The ethnological collections contain many objects now irreplaceable owing to the rapidly changing material culture, under European influence, of the African tribes inhabiting the Territory. These collections are rapidly becoming expanded owing to the need to collect all possible material and data before it is too late. During 1949 an important collection of material culture was made from the last remaining groups of Hukwe Bushmen in the Sesheke district. The archaeological collections, the result of the Museum's research, form the basis for correlation work between East and South Africa.

Research is carried out in ethnology and archaeology, and the Museum publishes a handbook and a series of occasional papers.

PART III

Chapter 1 : Geography and Climate

The Protectorate of Northern Rhodesia lies on the plateau of Central Africa between the longitudes 22° E. and $33^{\circ} 33'$ E. and between the latitudes $8^{\circ} 15'$ S. and 18° S. Its area is 290,323 square miles, and its boundaries are 3,515 miles in length.

Its neighbouring territories are Angola (Portuguese West Africa) on the west, the Belgian Congo on the north and north-west, Tanganyika Territory on the north-east, Nyasaland on the east, Portuguese East Africa and Southern Rhodesia on the south-east and south and the Caprivi Strip of South-West Africa on the south. The Zambezi River forms the boundary of Northern Rhodesia on the south for about 520 miles, separating it from the Caprivi Strip and Southern Rhodesia, whilst the Luapula River forms another natural boundary between the Protectorate and the Belgian Congo, along the northern edge of the Congo Pedicle and north as far as Lake Mweru, for a distance of about 300 miles. The remaining boundaries follow watersheds and occasional streams or are marked by beacons across land areas.

With the exception of the valleys of the Zambezi, the Luapula, the Kafue and the Luangwa Rivers the greater part of Northern Rhodesia has a flat to rolling topography, with elevations varying from 3,000 to 5,000 feet above sea level, but in the north-eastern districts the plateau rises to occasional altitudes of over 5,000 feet. In many localities the evenness of the plateau is broken by hills, sometimes occurring as chains which develop into areas of broken country. The highest group of hills is the Muchinga Mountains which form part of the Great Escarpment running down the western edge of the Luangwa River Valley, and of these, individual peaks rise to about 8,000 feet.

On the whole the Territory is well wooded, even the crests of the highest hills bearing trees and orchard-like bush. Hundreds of square miles of country lie under tall grass along the Kafue in an area known as the Kafue Flats, in the Barotse Plains near the Zambezi and also over a large area south of Lake Bangweulu. These open grassy spaces, for the most part, contain swamps in which the water level fluctuates with the rainy seasons. The southern and central districts comprise

areas where sparse bush alternates with grass lands in which farming and ranching have developed.

A glance at a large-scale map suggests that the Territory is well watered, but many of the smaller rivers shown have a seasonal flow and dry up after the rains. The larger rivers, the Zambezi, Kafue, Luangwa, Chambeshi and Luapula, together with their larger tributaries, have an all-year-round flow. The three great lakes of Northern Rhodesia are Lake Bangweulu in the northern districts and Lakes Mweru and Tanganyika on the northern boundaries. Lake Bangweulu and the swamps at its southern end cover an area of about 3,800 square miles, and there are a number of other much smaller lakes such as Lake Young in the Mpika District, Lake Chila near Abercorn, Lake Chirengwa near Ndola and Lusiwasi Lake (or Lake Moir) off the Great North Road to the north of Serenje. Northern Rhodesia has the greatest waterfall in the world, the Victoria Falls, on its southern boundary and the highest waterfall in Africa, Kalambo Falls, 704 feet, on its northern border.

Although Northern Rhodesia lies within the tropics, and fairly centrally in the great land mass of the African continent, its elevation relieves it from the extremely high temperatures and humidity usually associated with tropical countries. The lower reaches of the Zambezi, Luangwa and Kafue rivers in deeper valleys do experience high humidity and trying extremes of heat, but these areas are remote and sparsely populated.

The year may be conveniently divided into the rainy season, the winter months and the hot season. The rains occur between November and April and are copious while they last, varying from an average of twenty-five to thirty inches a year in the south to over fifty inches a year in the north. For the most part the rains fall in a series of thunderstorms and showers with only rare periods of continuous rain over several days. Even during the rains a fair amount of sunshine is recorded.

During the winter months—May to August—fair, cool weather with a moderate breeze is the general rule. Night temperatures are low, and ground frost occurs quite frequently in sheltered valleys. Day temperatures are comfortably warm, except on occasional grey cloudy days.

The hot season is short, the months of October and November being the hottest, when day temperatures go up to 80 to 100 degrees, depending upon locality. Towards the end of the hot season night temperatures tend to rise and there is a generally oppressive feeling in the air which is only relieved by the advent of the rains.

The following table gives the average minimum and maximum temperatures and dewpoints at six stations of varying altitudes for three representative months.

	January			July			October		
	Max. Temp. °F.	Min. Temp. °F.	Dew- point °F.	Max. Temp. °F.	Min. Temp. °F.	Dew- point °F.	Max. Temp. °F.	Min. Temp. °F.	Dew- point °F.
Abercorn, 5,454 ft. .	76	59	60	77	51	47	84	60	51
Kasama, 4,514 ft. .	79	61	63	76	50	48	88	62	50
Lusaka, 4,191 ft. .	78	63	64	73	50	44	88	64	49
Fort Jameson, 3,756 ft. .	81	65	64	77	53	49	90	67	54
Livingstone, 3,161 ft. .	84	66	66	79	45	42	95	67	52
Luangwa Bridge, 1,324 ft.	89	72	72	85	54	51	101	74	57

Chapter 2 : History

Relics of prehistoric man have been found in Northern Rhodesia, in particular the skull of *Homo rhodesiensis* in the Broken Hill Mine, and Stone Age culture around the Victoria Falls. At a rough estimate they suggest human occupation at anything between 20,000 and 50,000 years ago, though an exhaustive examination of all possible areas has yet to be undertaken. The early history of Northern Rhodesia is fragmentary and can only be gleaned from tribal histories, which are subject to doubt, since they are passed down by word of mouth from generation to generation, and from the accounts of the few explorers who penetrated the "Dark Continent" from the east and west coasts.

The Portuguese Governor of Sena, Dr. Lacerda, encouraged by the report of the half-breed Fereira who returned from Kasembe's capital, close to the eastern shores of Lake Mweru, in June, 1798, left Tete for the north. He was accompanied by Fathers Francisco, Jose and Pinto, twelve officers and fifty men-at-arms, but failed to reach his goal, and died within a few miles of Kasembe's capital. Father Pinto led the remnants of the expedition back to Sena, and it is from Dr. Lacerda's diaries, which Father Pinto with great difficulty saved, that the first authentic history of what is now North-Eastern Rhodesia is taken. Dr. Lacerda was followed in the early nineteenth century by two Portuguese traders, Baptista and Jose, who brought back stories of the great interior kingdom of the Lunda, which extended from Lake Mweru to the confines of Barotseland and included the whole of the country drained by the Upper Congo and its tributaries. This kingdom is reputed to have lasted from the sixteenth to the nineteenth century. Very few historical facts are known about it, but the name of Mwatiamvwa or Mwachiamvwa, the dynastic title of the paramount chief, is associated, like Monomotapa, with many half-legendary stories. Neither of these expeditions was of any great geographical value, and it was not till 1851, when Dr. Livingstone made his great missionary journeys and travelled through Barotseland and in 1855 discovered the Victoria Falls, that the civilised world had its first authentic information of Northern Rhodesia. Other and later explorers who brought back stories of the barbarism of the natives, of the wealth of game, and of the glories of the Victoria Falls, were Serpa Pinto, Cameron, Selous and Arnot.

From the very early days when the hordes of migratory Bantu swept southwards from Central and Northern Africa, Northern Rhodesia has been subject to constant invasion from stronger tribes on its

borders, so much so that the vast majority of the present native population, though of Bantu origin, is descended from men who themselves invaded this country not earlier than A.D. 1700. One or two small tribes, numbering now only a very few thousand, such as the Subia on the Zambezi, are all that remain of the inhabitants of Northern Rhodesia prior to that date. Though the story of these invasions has passed into oblivion, their traces remain in the extraordinary number and diversity of races and of languages in the country.

At the present time the population of the Territory has been classified into seventy-three different tribes, the most important of which are the Bemba, Ngoni, Chewa and Bisa in the north-eastern districts, the Lozi, Tonga, Luvale, Lenje and Ila in the north-western districts, and the Senga, Lala and Lunda, sections of which are resident in both the eastern and western areas. There are some thirty different dialects in use, but many of them vary so slightly that a knowledge of six of the principal languages will enable a person to converse with every native of the country. Nyanja is in use as the official language of the police and of the Northern Rhodesia Regiment, and is probably the language most generally spoken by Europeans. In many instances the tribes overlap and encroach upon each other, and it is not uncommon to find a group of villages of one tribe entirely surrounded by villages of another tribe. Many of the tribes on the borders extended into neighbouring territories; in some instances the paramount chief resides in a foreign country and only a small proportion of the tribe lives in Northern Rhodesia.

The chief invaders of the early part of the nineteenth century were the Arabs from the north, the Ngoni, a branch of the early Zulus who fled from the oppressive tyranny of Tchaka and who settled in the north-east of the Territory, and the Kilolo, an offshoot of the Suto family, who in the beginning of the nineteenth century fought their way from the south through Bechuanaland and across the Zambezi under the noted Chief Sebitoani; they conquered the Toka, the Subia, and the Lozi and founded a kingdom which was distinguished by a comparatively high degree of social organisation.

The duration of the Kilolo kingdom was short, lasting between twenty and thirty years. Soon after the death of Sebitoani, the Lozi rebelled and massacred the Kilolo to a man, keeping their women. As a result of this the influence of their occupation is still to be seen in the Kilolo language, which is largely spoken amongst the tribes near the Zambezi. The Lozi under Lewanika enlarged their kingdom by conquering several surrounding tribes, such as the Nkoya, the Lovale and the Toka. Beyond these limits their authority was both nebulous and ephemeral.

In the year 1891 Lewanika was informed that the protection of Her Majesty's Government had been extended to his country as he had requested that it should be, and on 17th October, 1900, the Barotse Concession was signed by him and his chiefs and representatives of the Chartered Company. The concession was confirmed in due course by the Secretary of State for the Colonies, and under its terms the Company acquired certain trading and mineral rights over the whole of Lewanika's dominion, while the paramount chief was to receive, among other advantages, an annual subsidy of £850.

During this time the slave trade established by the Arabs continued unchecked. Its baleful influence had gradually spread from the shores of Lake Nyasa and Tanganyika over the whole Territory ; but with the establishment of a Government post at Abercorn in 1892 the slave trade in this part of Africa received its first serious check. In each succeeding year more Arab settlements on the lake shore were destroyed. Sir Harry Johnston defeated the Arab chief Mlozi at Karonga in 1894, and the last caravan of slaves, which was intercepted on its way to the east coast, was released at Fort Jameson in 1898. Even after that, bands of slave-raiders were occasionally encountered on the north-east boundary and skirmishes with them took place as late as 1900 ; but with the final establishment of the administration of the British South Africa Company the slavers quickly disappeared from the country. The status of the conquered tribes under Lewanika's dominion was that of a mild form of slavery. This social serfdom was brought to an end by the edict of Lewanika, who in 1906 agreed to the emancipation of the slave tribes.

Before 1899 the whole Territory had been vaguely included in the Charter granted to the British South Africa Company, but in that year the Barotseland-North-Western Rhodesia Order in Council placed the Company's administration of the western portion of the country on a firm basis. It was closely followed by the North-Eastern Rhodesia Order in Council of 1900 which had a similar effect. The two territories were amalgamated in 1911 under the designation of Northern Rhodesia, and the administration of the Company (subject to the exercise of certain powers of control by the Crown) continued until 1924. In that year the administration of the Territory was assumed by the Crown in terms of a settlement arrived at between the Crown and the Company, and the first Governor was appointed on 1st April, 1924.

In the years that followed came the development of Northern Rhodesia's great copper industry. A bad start with the Bwana M'kubwa crash, one of the biggest mining fiascos in African history, was prelude

to a brilliant future. The Territory's four big mines at Luanshya, Nkana, Mufulira and Nchanga came into production shortly after Bwana M'kubwa collapsed in 1930. These four mines have altered the entire economic outlook of the Protectorate. A country whose progress rested on an annual revenue of about half a million pounds in a few years was netting ten million and more annually, and building up reserve funds of several million pounds. It is largely upon copper that the new schools, hospitals, roads and other recent witnesses to increasing prosperity are founded.

Chapter 3 : Administration

CENTRAL ADMINISTRATION

The constitution of Northern Rhodesia provides for an Executive Council and a Legislative Council. There is a majority of Unofficial Members over Official Members in the Legislative Council.

The Executive Council is presided over by the Governor and in 1949 consisted of seven Official Members and five Unofficial Members. One of the Unofficial Members of Executive Council represents African interests.

The Legislative Council is presided over by a Speaker and contains nine Official Members and fourteen Unofficial Members, of whom four are nominated to represent African interests. Two of these are Africans.

LOCAL ADMINISTRATION

The system of indirect rule is in force, under which Native Authorities with their own Treasuries are constituted with powers defined by statute. The Native Authorities can make orders, subject to the veto of the Provincial Commissioner, which have the force of regulations under the law. Such orders are made on minor matters affecting the welfare of the area concerned, markets, agriculture, forestry, game conservation, and so on. The Native Authorities can also make rules, subject to the approval of the Governor, such rules constituting more important local legislation for the peace, good order and welfare of the people of the area concerned, and including the levying of local rates and fees. Recently many Native Authorities have levied rates for such objects as education and the upkeep of roads.

The Provincial Councils instituted in 1943 continued to prove their use as vehicles of African opinion. The standard of the debates improved and their scope widened to include a large variety of topics of all degrees of importance. These Councils consist of Chiefs and Native Authority Councillors selected at tribal gatherings and at urban advisory councils. Thus all elements of the African community are

represented. They are at liberty to raise and debate any matter they wish. Their functions are advisory but Government pays careful attention to the views and wishes expressed. It is gratifying to note how well the tribal elders and the most advanced elements mix and debate matters of general interest. From these councils, eight in number, and from Barotseland, delegates are elected to attend an African Representative Council for the Territory, where the procedure is as nearly as possible that of Legislative Council.

In 1948 two African Members were appointed to Legislative Council by the Governor. They were selected by the African Representative Council from among its members by secret ballot.

LOCAL GOVERNMENT

Councils and Boards with local government powers and duties have been constituted for the leading towns since the earliest days. There are two Municipal Councils and thirteen Township Management Boards, the distinction being one of dignity and comparative powers. Five African Township Management Boards were also formally established in 1949 with local government powers over certain African suburbs in the Copperbelt. Leading authorities are at least in part elected, members hold office for two years and the franchise derives from the ownership or occupation of rateable property.

All Councils and Boards are authorities under Public Health legislation, can raise rates, borrow moneys, own and manage housing schemes and are in control of roads and public services in their areas. They are not responsible authorities for education or medical services but are advisory on town planning and land matters. The Councils of municipalities may make by-laws and raise loans from sources other than the Government. Township Management Boards borrow all funds from the Government and work under Townships Regulations enacted by the Governor in Council on which, however, they are closely consulted. It has been the Government's policy to foster and encourage local autonomy and initiative by extending the powers of local authorities.

The gross revenue and expenditure of all local authorities in 1949 was in the neighbourhood of £310,000 ; the total loan indebtedness, consisting almost entirely of loans from the Government, is approximately £710,000. An indication of the growth of local government activities and responsibilities in the past few years is the fact that these figures are roughly double those of five years ago. The gross revenue

and expenditure and outstanding loan liabilities of local authorities for the period 1944 to 1949 are as shown below :

	Gross Recurrent Revenue £	Gross Recurrent Expenditure £	Loan Liabilities £
1945 . . .	170,562	162,705	250,662
1946 . . .	188,689	182,029	291,510
1947 . . .	226,995	220,009	357,935
1948 . . .	272,721	255,386	492,900
1949 (estimated)	325,662	310,236	709,626

In addition local authorities at the end of 1949 had received approval for loan works totalling £389,167, but for reasons mainly arising out of material difficulties had not taken up these funds.

A new system of Government grants to local authorities was introduced in 1949, the salient points of which are that the Government pays to the local authority a contribution in lieu of rates on all Government rateable property, meets one-half of the public health expenditure incurred by the local authority, is financially responsible for the cost of national roads passing through a town and makes over one-half of all the licence fees collected for vehicles in the town. There are also certain minor grants, including an African housing subsidy.

The differential rating system is followed, i.e. the local authority may levy rates at different amounts on the capital value of lands and/or buildings. Water and Electricity Undertakings are financed from a tariff on consumption, usually at slightly over cost. Local authorities also receive trades licence fees and charge for sanitary services.

In 1946 a Local Government Department was established, and by 1949 it had been possible to fill the principal posts with officers with local government experience in the United Kingdom and other territories. A Municipal Association of Northern Rhodesia was established in 1947 and takes the lead in co-ordinating opinions and in initiating changes of policy or legislation. The Government co-operates fully with the Association. One of the portfolios created in 1949, whereby unofficial Members of Executive Council assumed responsibility for groups of Departments, was that of Health and Local Government. The Member of the Legislative Council appointed to the post had formerly been mayor of one of the Municipal Councils.

Management Boards have been appointed for the four Mine Townships of the Copperbelt to organise public services and to pass regulations and by-laws binding on local residents. The finances of Mine Management Boards are not subject to the same degree of central government control as those of other Townships and Municipalities nor do they receive Government grants.

The only local government activity outside towns and Native areas is the work of Road Boards in farming areas. These Boards administer funds for road construction and maintenance voted by the Government. They are not rating authorities or elected. In 1948 and 1949 discussions took place on the establishment of District Councils to be formed by the fusion of one or more Road Boards and Townships into single units. The object was to create a local government unit with greater financial resources capable of being given wider powers and of employing more specialised staff. This possibility is still being discussed and examined.

Chapter 4: Weights and Measures

Imperial weights and measures are in use in the Territory.

An Inspector of Weights and Measures was appointed in August, 1946, and was temporarily allocated to the staff of the Price Control Department, acting also as an Inspector under the Price Control Regulations. This arrangement proved unsatisfactory and in 1947 the Inspector was transferred to the Police. He undertook numerous inspections during the year.

Chapter 5: Newspapers and Periodicals

The following is a list of the European newspapers circulated in the Territory (no periodicals are published in Northern Rhodesia):

The Bulawayo Chronicle, P.O. Box 585, Bulawayo.

Central African Post, P.O. Box 74, Lusaka.

Livingstone Mail, P.O. Box 97, Livingstone.

Northern Rhodesia Advertiser, P.O. Box 208, Ndola.

Northern News, P.O. Box 69, Ndola.

An African newspaper is published in the Territory by the Information Department of the Government; it is *Mutende*, P.O. Box 210, Lusaka.

Chapter 6 : Bibliography

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- The Lands of the Cazembe.* Translation of Dr. Lacerda's diaries and information about Portuguese expeditions. By Sir Richard Burton. Published by the Royal Geographical Society. (John Murray, London, 1873.)
- Livingstone and the Exploration of Central Africa.* By Sir H. H. Johnston. (Phillip and Son, London, 1894. 4s. 6d.)
- On the Threshold of Central Africa.* By F. Coillard. (Hodder and Stoughton, London, 1897. 15s.). Contains an account of the social and political status of the natives.
- Exploration and Hunting in Central Africa.* By A. St. H. Gibbons. (Methuen and Co., London, 1898. 15s.). Contains a full, careful description of the Upper Zambezi and an account of the subjects of Chief Lewanika.
- Au Pays des Ba-Rotsi, Haut-Zambezi.* By A. Bertrand (Hachette, Paris, 1898. English Edition, Unwin. 16s.).
- In Remotest Barotseland.* By Colonel C. Harding. (Hurst and Blackett, London, 1905. 10s. 6d.).
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- Land, Labour and Diet in Northern Rhodesia.* By Audrey I. Richards. (International Institute of African Languages and Culture, Oxford University Press, 1939.).
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- Native Tribes of North-Eastern Rhodesia.* By J. C. C. Coxhead. (London Royal Anthropological Institute, 1914.).
- British South Africa Company's Reports on the Administration of Rhodesia.*
- War and Northern Rhodesia.* An account of the Territory's War Effort. (Information Department, Northern Rhodesia. 1s.).
- Northern Rhodesia Handbook.* A guide book for tourists. (Information Department, Northern Rhodesia. Free.)

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GOVERNMENT PRINTER, LUSAKA

The Crown Agents for the Colonies, London, are agents for the sale of publications issued by the Northern Rhodesia Government.

African Housing. A report published by the Standing Committee on African Housing, February, 1949, 5s.

Africans in Industry. Report of Commission, October, 1947, 1s.

African Representative Council. Verbatim reports of proceedings, 1s.

Agriculture. Report on Agricultural Industry, October, 1931, 2s.

Agricultural Survey. Report of Commission, 1929 (postage 8d.), 7s. 6d.

Air Law of Northern Rhodesia. As in force on 31st March, 1949 (obtainable from Department of Civil Aviation), 7s. 6d.

Annual Report on Northern Rhodesia for 1948. Issued by the Colonial Office, 2s. 6d.

Bemba Chiefs. By W. V. Brelsford, 1948, 3s. 6d.

Birds of Northern Rhodesia. By C. M. N. White and J. M. Winterbottom, 1947, 2s. 6d.

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Brickmaking. By C. W. Kiln, 1s.

Cattle Industry. Memorandum compiled by Veterinary Department, 1937, 1s.

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Financial Relationships. Report of Committee, 1949, 2s.

Fish Culture. By T. Vaughan-Jones, Director of Game and Tsetse Control, 1947, 1s.

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 Within Northern Rhodesia—Annual subscription, 12s.
 Other countries—Annual subscription, 13s. 6d.
 Single copies, 6d.
 Back numbers, 1s.
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 Contained in seven loose-leaf volumes, £10 10s.
 Annual subscription, £2 2s.
 Separate Acts available (apply to Government Printer for list.)
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 Volume I (1931–1937), £1 1s. ; Volume II (1938–1942), £1 1s. ; Volume III (1943–1944), 7s. 6d ; Volume IV (1948) £1 1s. 10d.
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INSTITUTE, LIVINGSTONE

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- The Study of African Society.* Godfrey Wilson and Monica Hunter. First printing 1939. Second printing 1942. 21 pp. 6s. (postage 1d.).
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